

ORDINANCE NO. 2013-07-___

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MCKINNEY, TEXAS, AMENDING CHAPTER 42 OF THE CODE OF ORDINANCES OF THE CITY OF MCKINNEY, TEXAS, BY REPEALING ARTICLE II OF CHAPTER 42, SECTIONS 42-23 THROUGH 42-26; ESTABLISHING A NEW CHAPTER 42, ARTICLE II, ENTITLED "FIRE PREVENTION CODE," AND ADOPTING THE 2012 EDITION OF THE INTERNATIONAL FIRE CODE; PROVIDING FOR ENFORCEMENT; ESTABLISHING AMENDMENTS IN ACCORDANCE WITH THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS RECOMMENDED AMENDMENTS TO THE 2012 INTERNATIONAL CODES AND INDUSTRY STANDARDS; REPEALING ALL CONFLICTING ORDINANCES; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY; AND PROVIDING AN EFFECTIVE DATE

WHEREAS, the City of McKinney, Texas (the "City") is a Home Rule City possessing the full power of local self-government pursuant to Article 11, Section 5 of the Texas Constitution, Section 51.072 of the Texas Local Government Code, and the City's Home Rule Charter; and

WHEREAS, a new edition of the International Fire Code (IFC) is produced every three years, and the 2012 Edition of the IFC has recently been issued by the International Code Council; and

WHEREAS, the current edition adopted for the City of McKinney is the 2006 Edition of the IFC; and

WHEREAS, a committee of fire code professionals works through the North Central Texas Council of Governments to recommend local amendments specific to the needs of North Central Texas, and the City of McKinney has consistently adopted these recommended amendments in the past so that most municipalities in the region use the same or similar fire code standards; and

WHEREAS, the adoption of the 2012 Edition of the IFC, including the local amendments, will provide the most current life safety applications with respect to construction, occupancy, use and maintenance of buildings and structures in the City of McKinney; and

WHEREAS, the creation of the 2012 International Codes by the International Code Council was in conjunction with the International Conference of Building Officials (ICBO), the organization whose codes the City of McKinney has adopted since the 1970's; and

WHEREAS, IFC certifications will be based on examinations conducted under the 2012 International Codes, so that adoption of the 2012 Edition of the IFC will facilitate such examinations; and

WHEREAS, the City Council of the City of McKinney, Texas, deems it to be in the best interest of the citizens of the City of McKinney to update and adopt the 2012 Edition of the IFC, as amended, as the minimum standard for the continued construction, occupancy, use and maintenance of buildings and structures within City limits.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MCKINNEY, TEXAS, THAT:

- Section 1. All of the above premises are found to be true and correct legislative determinations and are incorporated into the body of this Ordinance as if copied in their entirety.
- Section 2. Article II of Chapter 42 of the Code of Ordinances of the City of McKinney, Sections 42-23 through 42-26, entitled "Fire Prevention Code," is hereby repealed, and replaced with new Article II, Sections 42-23 through 42-26, as set forth in Section 3 of this Ordinance, below.
- Section 3. Chapter 42, Article II, of the Code of Ordinances of the City of McKinney, entitled "Fire Prevention Code," is hereby adopted to read as follows:

"ARTICLE II. FIRE PREVENTION CODE

Sec. 42-23. Adoption of International Fire Code.

There is hereby adopted by the City Council of the City of McKinney, Texas, for the purpose of prescribing regulations governing conditions hazardous to life and property, that certain code known as the 2012 Edition of the International Fire Code, including Appendices B, C, D, E, F, G, H, I and J as amended herein ("Code"). Copies of the Code, and the amendments thereto, as referenced herein, are on file in the office of the City Secretary for permanent record and inspection.

Sec. 42-24. Enforcement.

The Fire Chief, or his authorized representative, is hereby authorized and directed to enforce all provisions of the International Fire Code as adopted herein and as amended.

Sec. 42-25. Definitions.

The following words, terms and phrases, when used in the fire code adopted in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

- (a) Whenever the word "jurisdiction" is used in the International Fire Code, it shall mean the corporate limits of the City of McKinney, Texas.
- (b) Whenever the words "code official" are used in the International Fire Code, they shall mean the Fire Chief of the McKinney Fire Department.

Sec. 42-26. Fire Code Amendments.

The following amendments repeal and reenact or add sections of the fire code adopted in this article for the purpose of consistency with specific past practices and the recommendations of the North Central Texas Council of Governments:

- (1) **Section 101.1** shall be amended to read as follows:

 - 101.1 Title.** These regulations shall be known as the fire code of the City of McKinney, hereinafter referred to as "this Code."
- (2) **Section 102.1** item 3 shall be amended to read as follows:

 - 3. Existing structures, facilities and conditions when required in Chapter 11 or in specific sections of this code.

- (3) **Section 102.4** shall be amended to read as follows:

102.4 Application of other codes. The design and construction of new structures shall comply with this Code, and other codes as applicable, and any alterations, additions, changes in use or changes in structures required by this Code, which are within the scope of the International Building Code, shall be made in accordance therewith.

- (4) **Section 102.7** shall be amended to read as follows:

102.7 Referenced codes and standards. The codes and standards referenced in this Code shall be those that are listed in Chapter 80 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this Code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

102.7.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.7.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code and any adopted amendments, the provisions of this code and any adopted amendments, as applicable, shall take precedence over the provisions in the referenced code or standard.

- (4) **Section 102.7.3** shall be added to read as follows:

102.7.3 Specifically referenced editions of codes and standards. The most currently published editions shall be specifically adopted for the following NFPA standards:

NFPA 13
NFPA 13R
NFPA 13D
NFPA 14
NFPA 24
NFPA 25
NFPA 30
NFPA 72

- (5) **Section 103.1** shall be amended to read as follows:

103.1 General. The fire code shall be enforced by the Division of Fire Prevention. The Division of Fire Prevention is hereby established as a division of the Fire Department of the City of McKinney and shall be operated under the supervision of the Chief of the Fire Department.

- (6) **Section 103.2** shall be amended to read as follows:

103.2 Appointment. The Fire Marshal in charge of the Division of Fire Prevention shall be appointed by the Fire Chief on the basis of proper qualification.

- (7) **Section 103.1** shall be amended to read as follows:

103.3 Deputies. The Chief of the Fire Department may detail such members of the Fire Department as deputies, inspectors and other technical officers as shall from time to time be necessary and each member so assigned shall be authorized to enforce the provisions of the International Fire Code.

(8) **Section 105.3.3** shall be amended as follows:

105.3.3. Occupancy prohibited before approval. The building or structure shall not be occupied prior to the *fire code official* issuing a permit when required and conducting associated inspections indicating the applicable provisions of this code have been met.

(9) **Section 105.6.47** shall be added to read as follows:

105.6.47 Model Rocketry. An operational permit is required for the demonstration and use of model rockets, in accordance with NFPA 1122.

(11) **Section 105.7.17** shall be added to read as follows:

105.7.17 Smoke control or exhaust systems. Construction permits are required for smoke control or exhaust systems as specified in Section 909 and Section 910 respectively. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

(12) **Section 105.7.18** shall be added to read as follows:

105.7.18 Electronic access control systems. Construction permits are required for the installation or modification of an electronic access control system, as specified in Section 503 and Section 1008. A separate construction permit is required for the installation or modification of a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

(13) **Section 105.7.19** shall be added to read as follows:

105.7.19 Emergency and Standby Generators. Construction permits are required for the installation or modification of an emergency or standby generator, as specified in Section 604.

(14) **Section 105.7.20** shall be added to read as follows:

105.7.20 Access Gates and Barriers. Construction permits are required for the installation or modification of an access gate or barricade across a fire department access roadway, as specified in Section 503.

(15) **Section. 106.2.3** shall be added to read as follows:

106.2.3 Inspection fees applicability. The Fire Chief or his designated representative shall inspect all buildings, premises, or portions thereof as often as may be necessary. An initial inspection and one (1) re-inspection shall be made free of charge. If the Fire Chief or his designee is required to make follow-up inspections after the initial inspection and re-inspection to determine whether a violation or violations observed during the previous inspection have been corrected, a fee shall be charged. The occupant, lessee, or

person making use of the building or premises shall pay said fee or fees within thirty (30) days of being billed as a condition to continued lawful occupancy of the building or premises.

(16) **Section 108.1** shall be amended to read as follows:

108.1 Appeals. Whenever the fire code official shall disapprove an application or refuse to grant a permit applied for, or when it is claimed that the provisions of the fire prevention code do not apply or that the true intent and meaning of this Code have been misconstrued or wrongly interpreted, the applicant may appeal from the decision of the code official to the Fire Chief within thirty (30) days from the date of the decision appealed.

(17) **Section 109.3.5** shall be added to read as follows:

109.3.5 Citations. It is the intent of this department to achieve compliance by the traditional means of inspection, notification, granting of reasonable time to comply and re-inspection. After all reasonable means to gain compliance have failed, or when a condition exists that causes an immediate and/or extreme threat to life, property or safety from fire or explosion, the Fire Chief or his designee who have the discretionary duty to enforce a code or ordinance may issue a notice to appear (citation) for the violation. Citations shall be issued only by qualified personnel as designated by the Fire Chief.

Notwithstanding any other provision of this code or of the International Fire Code a citation may be issued without prior notice and the opportunity to correct the condition or violation.

(18) **Section 109.4** shall be amended to read as follows:

109.4 Violation penalties. Any person, firm, partnership, corporation, association, or other entity violating any provision of this article or of any code provision adopted herein shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in the sum of not more than \$2,000.00, and each day such violation continues shall constitute a separate and distinct violation.

(19) **Section 109.4.1** shall be amended to read as follows:

109.4.1 Applicability A person, firm, partnership, corporation, association, or other entity shall be presumed to be the violator if the person, firm, partnership, corporation, association, or other entity is the owner or occupant of the subject property, exercises actual or apparent control over the subject property, or is listed as the water customer of the city for the subject property.

(20) **Section 111.4** shall be amended to read as follows:

111.4 Failure to comply. Any person, firm, partnership, corporation, association, or other entity who shall continue any work after having been served with a stop work order, except any work as that person is directed to perform to remove a violation or unsafe condition, shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in a sum of not more than \$2,000.00, and each day such action continues shall constitute a separate and distinct violation.

(21) **Section 113.2** shall be amended as follows:

113.2 Schedule of fees. A fee for each permit shall be paid as required, in accordance with this section.

113.2.1 Inspection fees:

1. Re-inspection fees...\$47.00 per hour (one-half hour minimum).
2. Inspection fees for which no fire fee was assessed, per hour...\$47.00 per hour (one-half hour minimum).
3. For use of outside consultants for plan review, inspections, or both...actual costs.

113.2.1 Plan review fees:

1. Plan review required by changes, additions or revisions to plans... \$47.00 per hour (one-half hour minimum).

No fees shall be charged for any subsequent plan review of changes, additions, or revisions to plans which plan review was initiated solely by the Fire Chief, or his designee, for items that the Fire Chief failed to identify on a previous plan review.

2. For use of outside consultants for plan review, inspections, or both...actual costs.

113.2.3 Burn permit fees:

1. Contractors or property owners per occurrence (less than one acre)...\$20.00.
2. Agricultural/contractor/property owner (over one acre), per occurrence per day...\$50.00.

(22) **Section 113.3** shall be amended as follows:

113.3 Work commencing before permit issuance. Any person, firm, partnership, corporation, association, or other entity who commences any work, activity or operation regulated by this code before obtaining the necessary permits shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in the sum of not more than \$2,000.00, and each day work continues shall constitute a separate and distinct violation.

(23) **Section 202** shall be amended to add the following definitions:

Addressable Fire Detection System. Any system capable of providing identification of each individual alarm-initiating device. The identification shall be in plain English and as descriptive as possible to specifically identify the location of the device in alarm. The system shall have the capability of alarm verification.

Analog Intelligent Addressable Fire Detection System. Any system capable of calculating a change in value by directly measurable quantities (voltage, resistance, etc.) at the sensing point. The physical analog may be conducted at the sensing point or at the main control panel. The system shall be capable of compensating for long-term changes in sensor response while maintaining a

constant sensitivity. The compensation shall have a preset point at which a detector maintenance signal shall be transmitted to the control panel. The sensor shall remain capable of detecting and transmitting an alarm while in maintenance alert.

Self-Service Storage Facility. Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

Standby Personnel. Qualified fire service personnel, approved by the Fire Chief. When utilized, the number required shall be as directed by the Fire Chief. Charges for utilization shall be as normally calculated by the jurisdiction.

(24) **Section 202** shall be amended to add or amend the following definitions:

[B] *Ambulatory Health Care Facility.* Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing, or similar care on a less than 24 hour basis to persons who are rendered incapable of self-preservation. This group may include, but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery center
- Colonic centers
- Psychiatric centers

Atrium. An opening connecting three or more stories . . .
{remaining text unchanged}

Fire Watch. A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals or standby personnel when required by the fire code official, for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

Fireworks. Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration, detonation, and/or activated by ignition with a match or other heat producing device that meets the definition of 1.4G fireworks or 1.3G fireworks as set forth herein.
...{remainder of text unchanged}...

High-Piled Combustible Storage. Storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet (3658 mm) in height. When required by the fire code official, high-piled combustible storage also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height.

Any building exceeding 6,000 sq.ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection

system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

High-Rise Building. A building with an occupied floor located more than 55 feet above the lowest level of fire department vehicle access.

Repair Garage. A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such minor repairs.

- (25) **Section 202** shall be amended to add the following sentence to Manual Dry under STANDPIPE, TYPES OF:

The system must be supervised as specified in Section 905.2.

- (26) **Section 307** shall be amended to read as follows:

Section 307, Open Burning, shall be deleted and the provisions of Article III of Chapter 42, entitled "Open Burning," Sections 42-56 through 42-68 of the City of McKinney Code of Ordinances, as amended, shall be relied upon as the open burning provisions of the Fire Code.

- (27) **Section 308.1.1** shall be amended to add the following sentence:

Unmanned free-floating devices containing an open flame or other heat source, such as but not limited to sky lanterns shall be prohibited.

- (28) **Section 308.3.4** shall be amended to read as follows:

Section 308.3.4 Open-flame cooking devices. Open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be located or used on combustible balconies, decks, or within 10 feet (3048 mm) of any combustible construction.

Exceptions:

1. One- and two-family dwellings, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 pounds (5 containers).
2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 40 pounds (2 containers).
3. LP-gas cooking devices having LP-gas containers with a water capacity not greater than 2-½ pounds [nominal 1 pound (0.454 kg) LP-gas capacity].

- (29) **Section 308.1.6.2, Exception 3** shall be amended to read as follows:

3. Torches or flame-producing devices in accordance with Section 308.1.3.

(30) **Section 311.5** shall be amended to read as follows:

311.5 Placards. The fire code official is authorized to require marking of any vacant or abandoned buildings or structures determined to be unsafe to Section 110 of this code relating to structural or interior hazards, as required by Section 311.5.1 through 311.5.5.

(31) **Section 401.9** shall be added to read as follows:

401.9 False Alarms and Nuisance Alarms. False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

(32) **Section 401.9.1** shall be added to read as follows:

Section 401.9.1 Violations. Within a 30 day period, should 3 or more false or nuisance alarms be received, transmitted or notified, the owner, operator or representative of the property, building or facility shall be subject to a fine as set forth in Section 109.4 for each subsequent false or nuisance alarm.

(33) **Section 403.3** shall be amended to read as follows:

403.3 Crowd managers. Trained crowd managers shall be provided for facilities or events where 250 or more persons congregate. The minimum number of crowd managers shall be established at a ratio of one crowd manager to every 250 persons.

Exceptions:

1. The number of crowd managers may be reduced by up to fifty percent when, in the opinion of the code official, the fire protection provided by the facility and the nature of the event warrant a reduction T
2. Assembly occupancies used exclusively for religious worship with an occupant load not exceeding 1,000. A

403.3.1 Training. Training for crowd managers shall be approved and shall be based upon a valid job task analysis.

403.3.2 Duties. The duties of crowd managers shall include:

1. An inspection of the area of responsibility to identify and address any egress barriers
2. An inspection of the area of responsibility to identify and mitigate any fire hazards
3. Ensure compliance with all permit conditions, including those governing pyrotechnics and other special effects
4. Direct and assist the event attendees in evacuation during an emergency
5. Assist emergency response personnel if requested.
6. Other duties outlined by the Fire Code Official
7. Other duties outlined in the Emergency Plan

- (34) **Section 501.4** shall be amended to read as follows:

501.4 Timing of installation. When fire apparatus access roads or a water supply for fire protection is required to be installed for any structure or development, they shall be installed, tested, and approved prior to the time of which construction has progressed beyond completion of the foundation of any structure.

- (35) **Section 503.1.1** shall be amended to add the following:

Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a ten foot (10') wide unobstructed level pathway around the external walls of the structure and all barriers. A continuous row of parking between the fire lane and the structure shall be considered a barrier. Landscaping may also be considered a barrier based upon the location of type.

The provisions of this section notwithstanding, fire lanes may be required to be located within thirty feet (30') of a building if deemed to be reasonably necessary by the Fire Chief to enable proper protection of the building.

Fire lane and access easements shall be provided to serve all buildings through parking areas, to service entrances of buildings, loading areas and trash collection areas, and other areas deemed necessary to be available to fire and emergency vehicles. The Fire Chief is authorized to designate additional requirements for fire lanes where the same is reasonably necessary so as to provide access for fire and rescue personnel.

Fire lanes provided during the platting process shall be so indicated on the plat as a fire lane easement. Where fire lanes are provided and a plat is not required, the limits of the fire lane shall be shown on a site plan and placed on permanent file with the Fire Marshal and City Planning Department.

No owner or person in charge of any premises served by a fire lane or access easement shall abandon, restrict or close any fire lane or easement without first securing from the City of McKinney approval of an amended plat or other acceptable legal instrument showing the removal of the fire lane easement.

- (36) **Section 503.1.4** shall be added to read as follows:

503.1.4 Two points of access. A minimum two points of approved fire apparatus access shall be provided for each building, structure and subdivision. The two points of access shall be a minimum of 140 feet (140') apart as measured edge of pavement to edge of pavement.

- (37) **Section 503.1.5** shall be added to read as follows:

Section 503.1.5 Residential subdivisions. The maximum dead-end cul-de-sac length shall not exceed six hundred feet (600') as measured from the centerline of the intersection street to the center point of the radius.

Exception: Where a cul-de-sac exceeds six hundred feet (600') in length, an approved automatic fire suppression system installed per Section 903 shall be provided.

Exception: Where an approved automatic fire suppression system installed per Section 903 is provided.

(38) **Section 503.2.1** shall be amended to read as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7,315 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4,267 mm).

Fire lane dimensions established by Appendix D, or other sections of this Code, shall be superseded by the criteria established by this section.

The requirements of Section D105 shall remain unchanged.

Exception: Vertical clearance may be reduced provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance when approved.

(39) **Section 503.2.2** shall be amended to read as follows:

503.2.2 Authority. The code official shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

(40) **Section 503.2.3** shall be amended to read as follows:

503.2.3 Surface. Construction of all fire lanes shall be in accordance with McKinney Street Design Manual and this section.

Fire lanes shall be constructed of an asphalt or concrete surface capable of supporting the imposed loads of a 2-axle, 75,000 lb. fire apparatus. The design shall be based on the geotechnical investigation of the site, but shall meet the stated minimums.

The fire lane shall be constructed with a minimum 6 in. thick, 4000 PSI concrete with steel reinforcing of No. 3 bars spaced 24 in. on centers in each direction.

The base course thickness shall be a minimum of 6 in. in thickness and shall consist of lime or cement stabilization as recommended in the Geotechnical Report.

Where stabilization is not practical, the standard pavement thickness may be increased by 1 in. and a minimum of 6 in. flexible base course in lieu of treating the sub-grade with lime or cement. The base course shall consist of a minimum 6 in. flexible base course over a compacted sub-base to 95% Standard Proctor density, or 6 in. of asphalt base as approved by the City.

Whenever forty percent (40%) of existing, non-conforming fire lanes are replaced within a twelve month period, the entire fire lane shall be replaced according to current standards.

All fire lanes shall be maintained and kept in a good state of repair at all times by the owner and the City of McKinney shall not be responsible for the maintenance thereof. It shall further be the

responsibility of the owner to insure that all fire lane markings required by Section 503.3 be kept so that they are easily distinguishable by the public.

(41) **Section 503.2.4** shall be amended as follows:

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be in accordance with this section.

Any such fire lane shall either connect both ends to a dedicated public street or fire lane or be provided with an approved turnaround having a minimum outer radius of fifty feet (50'). If two or more interconnecting lanes are provided, interior radius for that connection shall be required in accordance with the following:

24 foot fire lane – minimum radius 30 feet
26 foot fire lane – minimum radius 30 feet
30 foot fire lane – minimum radius 20 feet

Fire lane dimensions established by Appendix D, or other sections of this Code, shall be superseded by the criteria established by this section.

The requirements of Section D105 shall remain unchanged.

(42) **Section 503.2.7** shall be amended as follows:

503.2.7 Grade. The grade of the fire apparatus access road shall be within the limits established by the fire code official. In no case shall the grades along a fire apparatus access road exceed the following:

Along the Fire Apparatus Access Road – 6%
Cross Slope – 5%

Exception. The code official shall have the authority to adjust the grade along the fire lane when necessary for fire or rescue operations or based upon the hazard being protected or general topography of the lot. In no case shall the grade exceed nine percent (9%). Written approval from the fire code official shall be required.

(43) **Section 503.2.8** shall be amended to read as follows:

503.2.8 Angles of approach and departure. The angles of approach and departure for a fire apparatus access road shall be within the limits established by the fire code official. In no case shall the grades exceed the following:

1. Maximum Angle of Approach – 5%
2. Maximum Angle of Departure – 5%

Exception. The code official shall have the authority to adjust the grade along the fire lane when necessary for fire or rescue operations or based upon the hazard being protected or general topography of the lot. Written approval from the fire code official shall be required.

(44) **Section 503.3** shall be amended to read as follows:

503.3 Marking. Striping, signs, or other markings, when approved by the fire code official, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs and other markings shall be maintained in a clean and legible condition at all times and shall be replaced or repaired when necessary to provide adequate visibility.

1. **Striping** – Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6”) in width to show the boundaries of the lane. The words “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” shall appear in four inch (4”) white letters at 25 foot (25’) intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on both the horizontal and vertical faces of the curb.
2. **Signs** – Signs shall read “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” and shall be twelve inches (12”) wide and eighteen inches (18”) high. Signs shall be painted on a white background with letters and borders in red, using not less than two-inch (2”) lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6’ 6”) above finished grade. Signs shall be spaced not more than fifty feet (50’) apart. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

(45) **Section 503.4** shall be amended to read as follows:

503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles, whether attended or unattended for any period of time. The minimum widths and clearances established in Section 503.2.1 through 503.2.8 and any area marked as a fire lane as described in Section 503.3 shall be maintained clear at all times. Unoccupied vehicles or other obstructions in the fire lane may be removed or towed at the expense of the registered owner.

503.4.1 Fire Lane Violations

1. The registered owner of a vehicle parked or standing in a fire apparatus access road shall be presumed to be the violator and may be held jointly and severally liable for the violation.
2. A person, firm, partnership, corporation, association, or other entity shall be presumed to be the violator and may be held jointly and severally liable for the violation if the person, firm, partnership, corporation, association, or other entity is the owner of, custodian of, or otherwise exercises actual or apparent control over equipment, materials, or other objects obstructing a fire apparatus access road.
3. The owner, occupant, or leaseholder of the property or business directly adjacent to the portion of the fire apparatus access road obstructed shall be presumed to be the violator and may be held jointly and severally liable.

(46) **Section 503.7** shall be added as follows:

503.7. Preemption device. When mechanically operated gates or barriers are provided, or required, across a fire apparatus access road, an approved emergency vehicle traffic preemption device shall be provided compatible with the fire department's apparatus.

(47) **Section 505.1** shall be amended to read as follows:

505.1 Address Identification. Approved numerals of a minimum six inches (6") height and of a color contrasting with the background designating the address shall be placed on all new and existing buildings or structures in a position as to be plainly visible and legible from the street or road fronting the property and from all rear alleyways/access.

Where buildings do not immediately front a street, approved six-inch (6") height building numerals or addresses and 3-inch (3") height suite/apartment numerals of a color contrasting with the background of the building shall be placed on all new and existing buildings or structures. Numerals or addresses shall be posted on a minimum twenty-inch by thirty-inch (20" X 30") background on border.

Address numbers shall be Arabic numerals or alphabet letters. The minimum stroke width shall be 0.5 inches.

Where access is provided by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign of means shall be used to identify the structure.

Exception. R-3 Single Family occupancies shall have approved numerals of a minimum three and one-half inches (3- 1/2") in height and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

(48) **Section 505.1.1** shall be added to read as follows:

505.1.1 Utility shut-off identification. Approved numerals of minimum one-inch (1") height and of a color contrasting with the background shall be placed on gas and electrical meters serving all new and existing buildings or structures except R-3 occupancies.

(49) **Section 507.4** shall be amended to read as follows:

507.4 Water supply test date and information. The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 "Recommended Practice for Fire Flow Testing and Marking of Hydrants" and within one year of sprinkler plan submittal. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official as required. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the waterflow test report, or as approved by the fire code official. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well, or identify applicable water supply fluctuation. The licensed contractor must then design the fire protection system based on this fluctuation information, as per the applicable referenced NFPA standard.

(50) **Section 507.5.1** shall be added to read as follows:

507.5.1 Where Required.

1. Spacing: As properties develop, fire hydrants shall be located at all intersecting streets and at the maximum spacing indicated in Table C105.1. Distances between hydrants shall be measured along the route that fire hose is laid by a fire apparatus from hydrant to hydrant, not as the “crow flies.”
2. Protected Properties: Fire hydrants required to provide a supplemental water supply for automatic fire protection systems shall be located within a 50 foot (50’) hose lay of the fire department connection for such systems.
3. Fire Hydrant Locations: Fire hydrants shall be located 2 foot (2’) to 6 foot (6’) back from the curb or fire lane and shall not be located in the bulb of a cul-de-sac.
4. Minimum Number of Fire Hydrants: There shall be a minimum of two (2) fire hydrants serving each property within the prescribed distances listed above. A minimum of one fire hydrant shall be located on each lot.

(51) **Section 507.5.4** shall be amended to read as follows:

507.5.4 Obstruction. Unobstructed access to fire hydrants shall be maintained at all times. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections of fire protection system control valves in a manner that would prevent such equipment of fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

(52) **Section 510.1** shall be amended to add the following:

In all new and existing buildings in which the type of construction or distance from an operational emergency services antenna or dispatch site does not provide adequate frequency or signal strength as determined by the code official, the building owner shall be responsible for providing the equipment, installation and maintenance of said equipment in a manner to strengthen the radio signal. The radio signal shall meet the minimum input/output strengths set forth in this section, or according to the emergency radio system’s provider and system manager.

(53) **Section 509.1.2** shall be added to read as follows:

509.1.2 Sign Requirements. Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of 2 inches (50.8 mm) when located inside a building and 4 inches (101.6 mm) when located outside, or as approved by the fire code official. The letters shall be of a color that contrasts with the background.

(54) **Section 511** shall be added to read as follows:

**SECTION 511
FIRE PROTECTION & BUILDING SIGNAGE**

511.1 Scope. The provisions of this chapter shall apply to the installation of directional, equipment and fire protection signage required by this section or other provisions of this code.

511.2 Requirements. All buildings and structures provided with an approved fire protection system, hazardous materials, high piled storage, fire department access or required by other provisions of this code, shall be provided with signage in the locations set forth in Sections 511.4 through 511.13 and shall be approved by the fire code official prior to installation.

Exception. This section shall not require existing buildings to be provided with the required signage unless the building is renovated, altered or as otherwise required by the fire code official or other provisions of this code.

511.3 Sign Specifications. All signs required by this section shall be in accordance with the following specifications, unless otherwise noted.

1. Minimum size of 12 in. x 12 in.
2. Constructed of a minimum 0.080 aluminum sheet with a minimum 0.75 radius corners.
3. Font style shall be Arial, with all letters capitalized, minimum 3 in. lettering and ½ in. width.
4. Sign face shall be traffic red.
5. Lettering and/or graphics shall be white and reflective.

Exceptions:

1. When the sign is to be located within the interior of a building is not required to be reflective.
2. The fire code official may approve alternate methods and material.

511.4 Fire Department Connection. All buildings provided with an approved automatic fire sprinkler system requiring a Fire Department Connection (FDC), shall indicate the location of the FDC with appropriate signage.

1. Building and structures in which multiple FDC's will be located within the same subdivision, shall also indicate numerical address, suite numbers served or other description as approved by the fire code official.
2. When multiple FDC's are provided at a common location to serve different types of fire protection systems, the sign shall further indicate the type of fire protection system served.
3. Where the FDC does not serve the entire building, a sign shall be provided indicating the portions of the building served.

511.4.1 Wall Mounted FDC. Wall mounted FDC's shall have a sign mounted 5 - 7 feet above grade directly over the FDC.

Exception. If the FDC is located such that it may be difficult to readily locate, the inclusion of a directional arrow or additional signage may be required.

511.4.2 Yard Mounted FDC. For fire protection systems supplies by a remotely mounted FDC, a sign shall be permanently mounted as following:

1. Sign shall be located directly adjacent to the FDC.
2. Shall be mounted on a sign post that extends a minimum of 6 feet (6') above grade.
3. The numerical street number shall be included.

511.4.3 FDC Protection. All FDC's shall have an 8 in. x 12 in. sign that reads "DO NOT BLOCK – BY ORDER OF FIRE MARSHAL" placed directly over the FDC.

511.5 Fire Protection Equipment Rooms. Room containing fire sprinkler riser assemblies and control equipment shall be identified with a 12 in. x 12 in. sign that reads "RISER ROOM." In the fire alarm system control panel and/or other fire protection equipment is located within the same room, the sign shall include lettering identifying all equipment located therein.

511.5.1. Multiple Riser Identification. When multiple risers are located within the same room, or in different locations within the same building, signs shall be provided to indicate the zone or floor served by the riser assembly, or the type of system serving the zone or floor. Signs shall be 8 in. X 4 in. with 2 in. lettering.

511.6 Fire Pump Test Header. When a fire pump is provided as part of the fire protection system, a sign shall be provided to differentiate the test header from other equipment. Signs shall be a minimum 8 in. x 6 in. with 2 in. lettering that reads "FIRE PUMP TEST HEADER."

511.7 Roof Access. For buildings and structures where roof access is not provided from the exterior of the building, a sign shall be provided on the door or room containing the access point. Sign shall be 8 in. x 6 in. with 2 in. lettering that reads "ROOF ACCESS."

511.8 Post Indicator Valves. When a Post Indicator Valve (PIV) is provided as part of the fire protection system, signs shall be provided to indicate the riser and/or zone controlled by the valve. Signs shall be located directly adjacent to the control valve and shall be either mounted on a sign post or affixed to the exterior of the building.

511.9 Fire Department Access. In the event that fire department access systems are so located in an area that is not readily identifiable, or as required by the fire code official, signs shall be provided and located as directed by this section or the fire code official.

511.9.1 Access Gates. When pedestrian access gates are provided, or otherwise required, in order to provide access to a building or facility, a minimum 8 in. x 6 in. sign shall be provided on the gate that reads "F.D. ACCESS."

511.9.2 Automatic Access Gates. When automatic or manual access gates are provided across a fire lane or entry/egress points to a residential subdivision, or otherwise required, in order to provide access to a building, facility or residential subdivision, a minimum 8 in. x 6 in. sign shall be

provided on the gate that reads "F.D. ACCESS."

511.9.3 Emergency Access Easements. When automatic or manual access gates are provided across an emergency access easement or fire lane to a residential subdivision, or otherwise required a minimum 8 in. x 6 in. sign shall be provided on the gate that reads "F.D. ACCESS."

511.10 Hazardous Materials. When required by other sections of the fire code, or the fire code official, an NFPA 704 shall be posted at a location on the premise as approved by the fire code official. The entire sign shall be made of a reflective material

Exception. Construction requirements of this section shall not apply, with the exception the sign must be reflective and a minimum of 12 in. x 12 in.

511.11 High-Piled Storage. When high piled combustible storage, in accordance with Chapter 23, is present within a building or structure, marking shall be provided as set forth in Section 511.11.1 through 511.11.3.

511.11.1 Striping. A 6 in. wide traffic red strip with 4 in. white lettering, OR 6 in. yellow strip with black lettering shall be provided in all areas in which storage exceeds 12 ft., or as required by the fire code official, around the perimeter of the designed storage area. The top of the strip shall indicate the maximum storage height, and shall read as follows "NO STORAGE PERMITTED ABOVE THIS LINE" at 25 ft. intervals.

Exception. When permitted by the fire code official, 6 in. wide red or yellow striping with no text may be allowed on the rack structures for non-publicly accessible areas where permanent signs are provided along the walls and racks per Section 511.11.2.

511.11.2 Signs. Permanent signs shall be placed on the ends of alternative racks to indicate "MAX. STORAGE HEIGHT XX FEET" or "NO STORAGE ABOVE THIS SIGN," for racks and areas in which a wall is not adjacent to the storage array. Signs shall be 12 in. x 12 in. with 2 in. lettering.

511.12 Flammable and Combustible Liquids. When required by this section or other sections of the fire code, signs shall be provided as follows to identify the content of the material stored or used. Signs shall be 8 in. x 6 in. with 2 in. lettering.

511.13 Fire Command Room. When a fire command room is provided, an 8 in. x 8 in. sign with 2 in. lettering shall be provided to read "FIRE COMMAND ROOM."

(55) **Section 603.3.2.1** Exception shall be amended to read as follows:

Exception. The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11,356 L) in accordance with all requirements of Section 3404.2.9.5.1 and Chapter 34.

(56) **Section 603.3.2.2** shall be amended to read as follows:

603.3.2.2 Restricted use and connection. Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

(57) **Section 604** shall be amended to read as follows:

**SECTION 604
EMERGENCY AND STANDBY POWER SYSTEMS**

604.1 Installation. Emergency and standby power systems required by this code or the International Building Code shall be installed in accordance with this code, NFPA 110 and 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

604.1.1 Stationary generators. Stationary emergency and standby power generators required by this code shall be listed in accordance with UL 2200.

604.1.2 Critical Operations Power Systems (COPS). For Critical Operations Power Systems necessary to maintain continuous power supply to facilities or parts of facilities that require continuous operation for the reasons of public safety, emergency management, national security, or business continuity, see NFPA 70.

604.2 Where required. Emergency and standby power systems shall be provided where required by Sections 604.2.1 through 604.2.24 or elsewhere identified in this code or any other referenced code.

604.2.1 Emergency voice/alarm communications systems. Emergency power shall be provided for emergency voice/alarm communications systems in the following occupancies, or as specified elsewhere in this code, in accordance with Section 907.5.2.2.5.

1. Covered and Open Malls, Section 604.2.13
2. Group A occupancies, Sections 907.2.1.1 and 907.5.2.2.4.
3. Special Amusement buildings, Section 907.2.12.3
4. High rise buildings, Section 907.2.13
5. Atriums, Section 907.2.14
6. Deep Underground buildings, Section 907.2.19

604.2.2 Smoke control systems. Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, in accordance with Section 909.11:

1. Covered mall building, International Building Code, Section 404.5
2. Atriums, International Building Code, Section 404.7
3. Underground buildings, International Building Code, Section 405.5
4. Group I-3, International Building Code, Section 408.9
5. Stages, International Building Code, Section

410.3.7.2

6. Special Amusement buildings (as applicable to Group A's), International Building Code, Section 411.1
7. Smoke protected seating, Section 1028.6.2.1

604.2.3 Exit signs. Emergency power shall be provided for exit signs in accordance with Section 1011.6.3. (90 minutes)

604.2.4 Means of egress illumination. Emergency power shall be provided for means of egress illumination in accordance with Section 1006.3. (90 minutes)

604.2.5 Accessible means of egress elevators. Standby power shall be provided for elevators that are part of an *accessible* means of egress in accordance with Section 1007.4.

604.2.6 Accessible means of egress platform lifts. Standby power in accordance with this section or ASME A18.1 shall be provided for platform lifts that are part of an accessible means of egress in accordance with Section 1007.5

604.2.7 Horizontal sliding doors. Standby power shall be provided for horizontal sliding doors in accordance with Section 1008.1.4.3.

604.2.8 Semiconductor fabrication facilities. Emergency power shall be provided for semiconductor fabrication facilities in accordance with Section 2703.15.

604.2.9 Membrane structures. Emergency power shall be provided for exit signs in temporary tents and membrane structures in accordance with Section 3103.12.6.1. (90 minutes) Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with the International Building Code. (4 hours)

604.2.10 Hazardous materials. Emergency or standby power shall be provided in occupancies with hazardous materials in accordance with Section 5004.7 and 5005.1.5.

604.2.11 Highly toxic and toxic materials. Emergency power shall be provided for occupancies with highly toxic or toxic materials in accordance with Sections 6004.2.2.8 and 6004.3.4.2.

604.2.12 Organic peroxides. Standby power shall be provided for occupancies with organic peroxides in accordance with Section 6204.1.11.

604.2.13 Covered and open mall buildings. (no change).

604.2.14 High-rise buildings. (no change).

604.2.15 Underground buildings. (no change).

604.2.16 Group I-3 occupancies. (no change).

604.2.17 Airport traffic control towers. (no change).

604.2.18 Elevators. (no change).

604.2.19 Smokeproof enclosures and Stair Pressurization Alternative. Standby power shall be provided for smokeproof enclosures, stair pressurization alternative and associated automatic fire detection systems as required by the International Building Code, Section 909.20.6.2.

604.2.20 Elevator pressurization. Standby power shall be provided for elevator pressurization system as required by the International Building Code, Section 909.21.5.

604.2.21 Elimination of Smoke Dampers in Shaft Penetrations. Standby power shall be provided when eliminating the smoke dampers in ducts penetrating shafts in accordance with the International Building Code, Section 717.5.3, exception 2.3.

604.2.22 Common exhaust systems for clothes dryers. Standby power shall be provided for common exhaust systems for clothes dryers located in multistory structures in accordance with the International Mechanical Code Section 504.8, item 7.

604.2.23 Hydrogen Cutoff Rooms. Standby power shall be provided for mechanical ventilation and gas detection systems of Hydrogen Cutoff Rooms in accordance with the International Building Code, Section 421.8.

604.2.24 Means of Egress Illumination in Existing Buildings. Emergency power shall be provided for means of egress illumination in accordance with Section 1104.5 and 1104.5.1 when required by the fire code official. (90 minutes in I-2, 60 minutes elsewhere.)

604.3 Energy time duration. Unless a time limit is specified by the fire code official, in this chapter or elsewhere in this code, or in any other referenced code or standard, the emergency and standby power system shall be supplied with enough fuel or energy storage capacity for not less than 2-hour full-demand operation of the system.

Exception: Where the system is supplied with natural gas from a utility provider and is approved.

604.4 Maintenance. (no change).

604.5 Operational inspection and testing. (no change).

604.6 Emergency lighting equipment. (no change).

604.7 Supervision of maintenance and testing. (no change).

(58) **Section 704.1** shall be amended to read as follows:

704.1 Enclosure. Interior vertical shafts, including but not limited to stairways, elevator hoist ways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of

construction but, regardless of when constructed, not less than as required in Chapter 46. New floor openings in existing building shall comply with the International Building Code.

- (59) **Section 705** shall be added to read as follows:

Section 705
Multiple Occupancy Buildings

705.1 Scope. The provisions of this chapter shall apply to all buildings and structures where more than one (1) occupancy is located within same building or structure.

705.2 Separation. Each occupancy shall be separated from adjoining occupancies by a minimum one-hour fire rated demising wall or assembly, constructed in accordance with the International Building Code.

- (60) **Section 807.4.3.2** shall be amended to read as follows:

807.4.3.2 Artwork. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such materials shall not be continuous from floor to ceiling or wall to wall.

Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

Exception: Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent (50%) of the wall area.

- (61) **Section 807.4.4.2** shall be amended to read as follows:

807.4.4.2 Artwork. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such materials shall not be continuous from floor to ceiling or wall to wall.

Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

Exception: Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent (50%) of the wall area.

- (62) **Section 901.5** shall be amended to add the following:

All required tests shall be conducted by and at the expense of the owner or his representative. The Fire Department shall not be held responsible for any damages incurred in such test. Where it is required that the Fire Department witness any such test, such test

shall be scheduled with a minimum of 48 hour notice to the Fire Chief or his representative.

(63) **Section 901.6.2** shall be added to read as follows:

901.6.2 Standpipe Testing. Building owners/managers must utilize a licensed fire protection company to maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

The piping between the Fire Department Connection (FDC) and the standpipe shall be hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.

For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the contractor shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet, or farthest interior outlet, to verify that each inlet connection functions properly. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.

Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.

If the FDC is not already provided with approved locking caps, the contractor shall install such locking caps for all FDC's as required by the fire code official.

Upon successful completion of standpipe test, the contractor shall place a blue tag (as per "Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag") at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.

The procedures as required by "Texas Administrative Code, Fire Sprinkler Rules" with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (fire code official) shall be followed.

Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.

Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.

Contact the fire code official for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this fire fighting equipment. All standpipe hose valves must remain in place and be provided with an approved

cap and chain when approval is given to remove hose by the fire code official.

- (64) **Section 901.7** shall be amended to replace the first paragraph as follows:

901.7 Systems out of service. Where a required fire protection system is out of service or in the event of an excessive number of activations, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service.

- (65) **Section 901.9** shall be added as follows:

901.10 Discontinuation or change of service. Notice shall be made to the fire code official whenever contracted alarm services for monitoring of any fire alarm system is terminated for any reason, or a change in alarm monitoring provider occurs. Notice shall be made in writing to the fire code official by the building owner and alarm service provider prior to the service being terminated.

- (66) **Section 903.1.1** shall be amended to read as follows:

903.1.1 Alternative protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in addition to automatic sprinkler protection where recognized by the applicable standard or as approved by the fire code official.

- (67) **Section 903.1.2** shall be added to read as follows:

903.1.2 Spray booths and rooms. New and existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Chapter 9.

- (68) **Section 903.1.2** shall be added to read as follows:

903.1.2 Residential systems. Unless specifically allowed by this Code or the International Building Code, residential sprinkler systems installed in accordance with NFPA 13D or NFPA 13R shall not be recognized for the purposes of modifications, exceptions or reductions, commonly referred to as "trade-offs," permitted by other requirements of this Code or the Chapter 5 of the International Building Code.

Residential sprinkler system installed in accordance with NFPA 13R shall include attic sprinkler protection to be recognized for the purposes of such trade-offs permitted by other requirements of this Code, or for modifications permitted under Chapter 5 of the International Building Code.

- (69) **Section 903.2** shall be amended to read as follows:

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. Automatic sprinklers shall not be installed in elevator machine rooms, elevator machine spaces and elevator hoistways. Storage shall not be allowed within the elevator machine rooms. Signage shall be

provided at the entry doors to the elevator machine rooms indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

(70) **Section 903.2** shall be amended to delete the exception.

(71) **Section 903.2.9.3** shall be added as follows:

903.2.9.3 Self-service storage facility. An approved automatic sprinkler system shall be installed throughout all self-service storage facilities.

(72) **Section 903.2.9.3.1** shall be added as follows:

903.2.9.3.1. Vertical storage limits. A screen shall be installed at eighteen inches (18”) below the level of the sprinkler heads to restrict storage above that level. This screen shall be a mesh of not less than one inch (1”) nor greater than six inches (6”) in size. The screen and its supports shall be installed such that all elements are at least eighteen inches (18”) below any sprinkler heads, measured from the level of the sprinkler deflector.

(73) **Section 903.2.11.3** shall be amended to read as follows:

903.2.11.3 Buildings more than 35 feet in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1509 of the International Building Code, that is located 35 feet (10,668mm) or more above the lowest level of fire department vehicle access.

Exceptions: Open parking structures in compliance with Section 406.5 of the International Building Code.

(74) **Sections 903.2.11.7** shall be added to read as follows:

903.2.11.7 High-piled combustible storage. For any building with a clear height exceeding 12 feet (4,572 mm), see Chapter 23 to determine if those provisions apply.

(75) **Sections 903.2.11.8** shall be added to read as follows:

903.2.11.8 Spray booths and rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic sprinkler system and/or an approved automatic fire-extinguishing system in accordance with Chapter 9 and Section 1504.

(76) **Sections 903.2.11.9** shall be added to read as follows:

903.2.11.9 Buildings over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area over 6,000 sq. ft. For the purpose of this provision, fire walls shall not define separate buildings. Building area is defined by the reflection of the roof, commonly referred to as “drip line.”

Exceptions:

1. Open parking garages in compliance with Section 406.3 of the International Building Code, when all of the following conditions apply:
 - a. The structure is freestanding.

- b. The structure does not contain any mixed uses, accessory uses, storage rooms, electrical rooms or spaces used or occupied for anything other than motor vehicle parking.
- c. The structure does not exceed 3 stories.
- d. An approved fire apparatus access road is provided around the entire perimeter of the structure.

2. Type A-5 Occupancies.

3. Type R-3 Occupancies.

(77) **Section 903.3.1.1.1** shall be amended to read as follows:

903.3.1.1.1 Exempt locations. When approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such . . . *{bulk of section unchanged}* . . . because it is damp, of fire-resistance-rated construction or contains electrical equipment.

- 1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
- 2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
- 3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
- 4. Elevator machine rooms, machinery spaces and hoistways, other than pits where such sprinklers would necessitate shunt trip requirements under any circumstances.

(78) **Section 903.3.1.2.2** shall be amended to read as follows:

Section 903.3.1.2.2 Attics, Open Breezeways, and Attached Garages. Sprinkler protection is required in attic spaces of such buildings two or more stories in height, open breezeways, and attached garages.

(79) **Sections 903.3.1.3** shall be amended to read as follows:

903.3.1.3 NFPA 13D Sprinkler systems. Where allowed, automatic sprinkler systems installed in one- and two-family dwellings and townhouses shall be installed throughout in accordance with NFPA 13D or in accordance with state law.

(80) **Section 903.3.5** shall be amended to add a second paragraph to read as follows:

Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10 psi safety factor. Reference Section 507.4 for additional design requirements.

(81) **Section 903.4** shall be amended to add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

- (82) **Section 903.4.2** shall be amended to add a second paragraph to read as follows:

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

- (83) **Section 903.7** shall be added to read as follows:

Section 903.7 Automatic Sprinkler System Room Access. Sprinkler system risers providing protection for buildings with multiple tenant spaces and/or occupancies must be located in a ground floor room directly accessible from the exterior of the building. The door must be labeled as the "RISER ROOM." Buildings with a single occupancy may access the riser location from the interior of the building. The minimum size of the room shall be 36 sq. ft., with the minimum dimension being 6 ft. When approved by the fire code official, smaller rooms may be permitted.

- (84) **Section 905.2** shall be amended to read as follows:

905.2 Installation standard. Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

- (85) **Section 905.3.9** shall be added to read as follows:

905.3.9. Building Area. In buildings exceeding 10,000 square feet in area per story, Class I automatic wet or manual wet standpipes shall be provided where any portion of the building's interior area is more than 200 feet (60,960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access.

Exception: Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.

- (86) **Section 905.3.9.1** shall be added to read as follows:

905.3.9.1 Class I standpipes shall also be required in all occupancies in which the distance from accessible points for Fire Department ingress to any area within the structure exceeds two hundred fifty feet (250') along the route a fire hose is laid as measured from the fire lane as a single route.

- (87) **Section 905.4, Item 5,** shall be amended to read as follows:

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3 percent slope), each standpipe shall be provided with a two-way hose connection located to serve

the roof or at the highest landing of a stairway with stair access to the roof provided in accordance with Section 1009.16. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

(88) **Section 905.4** shall be amended to add item 7 to read as follows:

7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred foot (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

(89) **Section 905.9** shall be amended to add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

(90) **Section 907.1.4** shall be added to read as follows:

907.1.4. Design Standards. All alarm systems new or replacement shall be addressable. Alarm systems serving more than 20 smoke detectors shall be analog addressable.

Exception: Existing systems need not comply unless the total building remodel or expansion initiated after the effective date of this code, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building, must comply within 18 months of permit application.

(91) **Section 907.2.1** shall be amended to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy. Activation of fire alarm notification appliances shall:

1. Cause illumination of the means of egress with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

(92) **Section 907.2.3** shall be amended to read as follows:

907.2.3 Group E. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or

detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of one hundred feet (100') of open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

- (93) **Section 907.2.3** shall be amended to amend Exception 1 and to add Exception 1.1 to read as follows:

Exceptions:

1. A manual fire alarm system is not required in Group E educational and day care occupancies with an occupant load of less than 50 when provided with an approved automatic sprinkler system.
- 1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.)

- (94) **Section 907.2.13, Exception 3** shall be amended to read as follows:

Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.

- (95) **Section 907.4.2.7** shall be added to read as follows:

Section 907.4.2.7 Type. Manual alarm initiating devices shall be an approved double action type.

- (96) **Section 907.6.1.1** shall be added to read as follows:

907.6.1.1 Wiring Installation. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from an addressable input (monitor) module may be wired Class B, provided the distance from the addressable module to the initiating device is ten feet or less.

- (97) **907.5.3** shall be added to read as follows:

Occupant notification in accordance with this section and 907.5 shall be required for all new construction, or existing construction complying with the International Building Code, for renovations to existing buildings, tenant spaces, changes in occupancy, replacement or modification of the existing fire alarm system, or as required by the fire code official, for all buildings or spaces provided with an approved automatic sprinkler system.

(98) **907.6.6** shall be added to read as follows:

907.6.6 Waterflow Notification. When required by Section 903.4.2, an exterior audible and visible notification device shall be provided on the exterior of the building and shall be located above the Fire Department Connection. The notification device shall operate on a waterflow alarm only, shall be non-silenceable and shall continue to operate after the panel is silenced on the condition the alarm was a waterflow alarm only. The notification device shall be wired from the fire alarm control panel as a dedicated latching circuit. Minimum candela rating for the notification device shall be 75 (cd) candela.

(99) **907.6.5.3** shall be added to read as follows:

907.6.5.3 Communication requirements. All alarm systems, new or replacement, shall transmit alarm, supervisory and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station as defined in NFPA 72, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition.

(100) **Section 907.10** shall be added to read as follows:

907.10. Fire extinguishing systems. Automatic fire-extinguishing systems shall be connected to the building fire alarm system where a fire alarm system is required by another section of this code or is otherwise installed.

(101) **RESERVED**

(102) **Section 910.1, Exception 2,** shall be amended to read as follows:

2. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, only manual smoke and heat vents shall be required within these areas. Automatic smoke and heat vents are prohibited.

(103) **Section 910.2.3** shall be added to read as follows:

910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1,394 m²) in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3 and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

(104) **Section 910.2.4** shall be added to read as follows:

910.2.4 Exit access travel distance increase. Buildings and portions thereof used as a Group F-1 or S-1 occupancy where the maximum exit access travel distance is increased in accordance with Section 1016.3.

(105) **Table 910.3** shall be amended as follows:

Change the title of the first row of the table from “Group F-1 and S-1” to include “Group H,” to now read as follows: Group H, F-1, S-1.

(106) **Section 910.3.2.2** shall be amended by adding a second paragraph to read as follows:

The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F° (38 degrees C°) greater than the temperature rating of the sprinklers installed.

(107) **Section 910.3** shall be amended to read as follows:

910.3.1 Design. Smoke and heat vents shall be listed and labeled to indicate compliance with UL 793.

910.3.2 Vent operation. Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

910.3.2.1 Gravity-operated drop out vents. Automatic smoke and heat vents containing heat-sensitive glazing designed to shrink and drop out of the vent opening when exposed to fire shall fully open within 5 minutes after the vent cavity is exposed to a simulated fire represented by a time-temperature gradient that reaches an air temperature of 500°F (260°C) within 5 minutes.

910.3.2.2 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

910.3.2.3 Nonsprinklered buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Gravity-operated drop out vents complying with Section 910.3.2.1.

910.3.3 Vent dimensions. The effective venting area shall not be less than 16 square feet (1.5 m²) with no dimension less than 4 feet (1219 mm), excluding ribs or gutters having a total width not exceeding 6 inches (152 mm).

- (108) **Section 912.2.1** shall be amended to add the following:

Where an approved fire lane is provided on site in order to provide fire department vehicle access to a building or structure, the fire department connection shall be located such that it faces the fire lane.

- (109) **Section 912.2.3** shall be added as follows:

Section 912.2.3 Hydrant distance. An *approved* fire hydrant shall be located within 50 feet (50') of the fire department connection as the hose lays.

- (110) **Section 912.4** shall be amended to read as follows:

912.4 Signs. Signs in accordance with Section 511 shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Where the fire department connection does not serve the entire building, a sign shall be provided indicating the portions of the building served.

- (111) **Section 913.1** shall be amended by adding a second paragraph to read as follows:

When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 feet (3') in width and six feet eight inches (6' 8") in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

Exception: When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the fire code official. Access keys shall be provided in the key box as required by Section 506.1.

- (112) **Chapter 10** shall be amended as follows:

Chapter 10: Sections 1001 through 1029; replace all references to "fire code official" with "building official."

- (113) **Section 1004.1.2** shall be amended as follows:

Delete exception.

- (114) **Section 1007.1, Exception 4** shall be added to read as follows:

Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1007.

- (115) **Section 1007.5** shall be amended as follows:

1007.5 Platform lifts. Platform (wheelchair) lifts . . . required accessible route in Section 1109.8, Items 1 through 10. Standby power . . . {remainder unchanged}

(116) **Section 1008.1.9.8** shall be amended to add the following:

7. Doors shall be equipped with panic and fire exit hardware controlling a manual switch under the bar that will unlock the door. All wiring and circuitry to the switch and power unit shall will be fail-safe.
8. If a full building smoke detection system is not provided, approved smoke detectors shall be provided on both the access and egress sides of doors and in a location approved by the authority having jurisdiction of NFPA 72. Actuation of a smoke detector shall automatically unlock the door.

(117) **Section 1008.1.9.8** shall be amended to add the following exception to condition 6, to read as follows:

Exception: In Group E Occupancies where ingress is available by keys and/or access card located in a Knox Box mounted at the main entrance to the building, the activation of the fire alarm system shall unlock the egress portion or capability of all doors while the ingress function may remain secured.

(118) **Section 1008.1.9.9** shall be amended to read as follows:

1008.1.9.9 Electromagnetically locked egress doors. Doors in the means of egress in buildings with an occupancy in Group A, B, E, I-1, I-2, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, I-1, I-2, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meet the requirements below:
{remaining text unchanged}

(119) **Section 1008.1.9.9, Exception 5** shall be amended to read as follows:

5. Panic or fire exit hardware shall be required and shall release the electromagnetic lock.

(120) **Section 1015.7** shall be added to read as follows:

1015.7 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

(121) **Section 1016.2.2** shall be added to read as follows:

1016.2.2 Group F-1 and S-1 increase. The maximum exit access travel distance shall be 400 feet (122 m) in Group F-1 or S-1 occupancies where all of the following are met:

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height;
2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm); and
3. The building is equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1.

(122) **Section 1018.1, Exception 6** shall be amended to read as follows:

6. In Group B office buildings, corridor walls and ceilings within single tenant spaces need not be of fire-resistive construction when the tenant space corridor is provided with system smoke detectors tied to an approved automatic fire alarm. The actuation of any detector shall activate alarms audible in all areas served by the corridor.

(123) **Section 1018.6** shall be amended to read as follows:

1018.6 Corridor continuity. All corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.

...{Exception unchanged}...

(124) **Section 1028.1.1.1** shall be deleted:

(125) **Section 1029.1** shall be amended to read as follows:

1029.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue openings in Group R and I-1. *{Remainder unchanged}*

Exceptions:

{Exceptions 1 through 3 unchanged.}

4. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

(126) **Section 1030.2** shall be amended to read as follows:

1030.2 Reliability. Required exit accesses, exits or exit discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency. An exit or exit passageway shall not be used for any purpose that interferes with a means of egress. Security devices affecting means of egress shall be subject to approval of the fire code official.

(127) **Section 1103.3** shall be amended to add the following:

Provide emergency signage as required by Section 607.2.

(128) **Section 1103.5.3** shall be added to read as follows:

1103.5.3 Spray booths and rooms. Existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Section 2404.

(129) **Section 2304.1** shall be amended to read as follows:

2304.1 Supervision of Dispensing. The dispensing of fuel at motor fuel-dispensing facility shall be in accordance with the following:

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or

3. Shall be an unattended self-service facility in accordance with Section 2304.3.

At any time the qualified attendant of item 1 or 2 above is not present, such operations shall be considered as an unattended self-service facility and shall also comply with Section 2204.3.

(130) **Section 2401.2** shall be deleted.

(131) **Table 3206.2 footnote J** shall be amended to read as follows:

Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, manual smoke and heat vents or manually activated engineered mechanical exhaust systems shall be required within these areas.

(132) **Section 3310.1** shall be amended to add the following:

When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time of which construction has progressed beyond completion of the foundation of any structure.

(133) **Section 5601.1.3** shall be amended to read as follows:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.

Exceptions:

1. Only when approved for fireworks displays, storage and handling of fireworks as allowed in Section 5604 and 5608.
2. The use of fireworks for approved display as allowed in Section 5608.

The presence or use of fireworks within the jurisdiction of the City of McKinney in violation of this Ordinance is hereby declared to be a common and public nuisance. The restrictions of this section shall be applicable and in force throughout the territory of the City of McKinney, Texas, and extending for a distance outside the City limits for a total of 5,000 feet (5,000'); provided that this section shall not be in effect within any portion of such 5,000 feet (5,000') area which is contained within the territory of any other municipal corporation. The owner, lessee or occupant of the property or structure where fireworks are being stored or used shall be deemed responsible for violating this section.

(134) **Section 5601.7.1** shall be added to read as follows:

5601.7.1 Documentation. The Fire Chief or his designee may seize and destroy illegal fireworks prior to a court appearance and photographs of such seized and destroyed fireworks will provide sufficient evidence of a violation of Section 3301.1.3 for the municipal court.

(135) **Section 5703.6** shall be amended to read as follows:

3403.6 Piping systems. Piping systems, and their component parts, for flammable and combustible liquids shall be in accordance with Sections 5703.6.1 through 5703.6.11. An approved method of

secondary containment shall be provided for underground tank and piping systems.

(136) **Section 5704.2.9.5** shall be amended to read as follows:

5704.2.9.5 Above-ground tanks inside of buildings. Above-ground tanks inside of buildings shall comply with Section 5704.2.9.5.1 through 5704.2.9.5.3.

(137) **Section 5704.2.9.5.3** shall be added to read as follows:

3404.2.9.5.3 Combustible liquid storage tanks inside of buildings. The maximum aggregate allowable quantity limit shall be 3,000 gallons (11 356 L) of Class II or III combustible liquid for storage in protected aboveground tanks complying with Section 3404.2.9.7 when all of the following conditions are met:

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be located in a room protected by an automatic sprinkler system complying with Section 903.3.1.1; and
4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an approved closed piping system.

The quantity of combustible liquid stored in tanks complying with this section shall not be counted towards the maximum allowable quantity set forth in Table 5003.1.1(1), and such tanks shall not be required to be located in a control area. Such tanks shall not be located more than two stories below grade.

(138) **Section 5704.2.11.5** shall be amended to read as follows:

Section 5704.2.11.5 Leak prevention. Leak prevention for underground tanks shall comply with Sections 5704.2.11.5.1 through 5704.2.11.5.3. An approved method of secondary containment shall be provided for underground tank and piping systems.

(139) **Section 3404.2.11.5.2** shall be amended to read as follows:

3404.2.11.5.2 Leak detection. Underground storage tank systems shall be provided with an approved method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30 and as specified in Section 5704.2.11.5.3.

(140) **Section 5704.2.11.5.3** shall be added to read as follows:

5704.2.11.5.3 Observation wells. Approved sampling tubes of a minimum 4 inches (4") in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches (12") below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall

provide a sampling sump at the corners of the excavation with a minimum of four (4) sumps. Sampling tubes shall be placed in the product line excavation within 10 feet (10') of the tank excavation and one every 50 feet (50') routed along product lines towards the dispensers, and a minimum of two (2) are required.

- (141) **Section 5706.5.4.5** shall be deleted and replaced with the following:

5706.5.4.5 Commercial, industrial, governmental or manufacturing. Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with Sections 5706.5.4.5.1 through 5706.5.4.5.3.

5706.5.4.5.1 Site requirements.

1. Dispensing may occur at sites that have been permitted to conduct mobile fueling.
2. A detailed site plan shall be submitted with each application for a permit. The site plan must indicate:
 - a. all buildings, structures, and appurtenances on site and their use or function;
 - b. all uses adjacent to the property lines of the site;
 - c. the locations of all storm drain openings, adjacent waterways or wetlands;
 - d. information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and
 - e. the scale of the site plan.
3. The fire code official is authorized to impose limits upon: the times and/or days during which mobile fueling operations are allowed to take place and specific locations on a site where fueling is permitted.
4. Mobile fueling operations shall be conducted in areas not generally accessible to the public.
5. Mobile fueling shall not take place within 15 feet (4.572 m) of buildings, property lines, or combustible storage.

3406.5.4.5.2 Refueling Operator Requirements.

1. The owner of a mobile fueling operation shall provide to the jurisdiction a written response plan which demonstrates readiness to respond to a fuel spill, carry out appropriate mitigation measures, and to indicate its process to properly dispose of contaminated materials when circumstances require.
2. The tank vehicle shall comply with the requirements of NFPA 385 and Local, State and Federal requirements. The tank vehicle's specific functions shall include that of supplying fuel to motor vehicle fuel tanks. The vehicle and all its equipment shall be maintained in good repair.

3. Signs prohibiting smoking or open flames within 25 feet (7.62 m) of the tank vehicle or the point of fueling shall be prominently posted on 3 sides of the vehicle including the back and both sides.
4. A fire extinguisher with a minimum rating of 40:BC shall be provided on the vehicle with signage clearly indicating its location.
5. The dispensing nozzles and hoses shall be of an approved and listed type.
6. The dispensing hose shall not be extended from the reel more than 100 feet (30.48m) in length.
7. Absorbent materials, non-water absorbent pads, a 10 foot (3.048 m) long containment boom, an approved container with lid, and a non-metallic shovel shall be provided to mitigate a minimum 5-gallon fuel spill.
8. Tanker vehicles shall be equipped with a fuel limit switch such as a count-back switch, limiting the amount of a single fueling operation to a maximum of 500 gallons (1,893 L) between resetting of the limit switch.

Exception: Tankers utilizing remote emergency shut-off device capability where the operator constantly carries the shut-off device which, when activated, immediately causes flow of fuel from the tanker to cease.

9. Persons responsible for dispensing operations shall be trained in the appropriate mitigating actions in the event of a fire, leak, or spill. Training records shall be maintained by the dispensing company and shall be made available to the fire code official upon request.
10. Operators of tank vehicles used for mobile fueling operations shall have in their possession at all times an emergency communications device to notify the proper authorities in the event of an emergency.

3406.5.4.5.3 Operational Requirements.

1. The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels.
2. Prior to beginning dispensing operations, precautions shall be taken to assure ignition sources are not present.
3. The engines of vehicles being fueled shall be shut off during dispensing operations.
4. Night time fueling operations shall only take place in adequately lighted areas.
5. The tank vehicle shall be positioned with respect to vehicles being fueled so as to preclude traffic from driving over the delivery hose and between the tank vehicle and the motor vehicle being fueled.

6. During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.
7. Motor vehicle fuel tanks shall not be topped off.
8. The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the tank vehicle.
9. The code official and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.

(142) **Section 6103.2.1.8** shall be added to read as follows:

6103.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies. Where natural gas service is not available, portable LP-Gas containers are allowed to be used to supply approved torch assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet (20').

(143) **Section 6104.2, Exception 2** shall be added to read as follows:

Exceptions:

2. Except as permitted in Sections 308.3 and 6104.3.2, LP-gas containers are not permitted in residential areas.

(144) **Section 6104.3.2** shall be added to read as follows:

6104.3.2 Spas, pool heaters and other listed devices. Where natural gas service is not available, LP-Gas containers are allowed to be used to supply spa and pool heaters or other listed devices. Such containers shall not exceed 250-gallon water capacity. See Table 6104.3 for location of containers.

Exception: Lots where LP-Gas can be off loaded wholly on the property where the tank is located may install 500 gallon aboveground or 1,000 gallon underground approved containers.

(145) **Section B105.1, Exception** shall be amended to read as follows:

Exception: A reduction in required fire-flow of up to 50 percent (50%), as approved, is allowed when the building is equipped with an approved automatic sprinkler system.

(146) **Section B105.2 Exception** shall be amended to read as follows:

Exception: A reduction in required fire-flow of up to 50 percent (50%), as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute for the prescribed duration as specified in Table B105.1.

(147) **Section D104.2** shall be amended to read as follows:

Delete exception.

(148) **Section J101.1** shall be amended to read as follows:

J101.1 Scope. New buildings shall have a building information sign(s), when required by the fire code official, that shall comply with Sections J101.1.1 through J101.7. Existing buildings shall be brought into compliance, when required by the fire code official, with Sections J101.1 through J101.9 when one of the following occurs.”

Section 4. The North Central Texas Council of Governments Region recommended Amendments (Attachment A) are hereby incorporated herein as set forth in this Ordinance. This document is on file in the office of the city secretary for permanent record and inspection.

Section 5. Except as provided in this Ordinance, all ordinances, orders or resolutions heretofore passed and adopted by the City Council of the City of McKinney, Texas, are hereby repealed to the extent that said ordinances, orders or resolutions, or parts thereof, are in conflict herewith.

Section 6. If any section, subsection, paragraph, sentence, clause, phrase or word of this Ordinance, or the application thereof to any person or circumstance, shall to any extent be held invalid, void or unconstitutional by a court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this Ordinance, and the City Council hereby declares that it would have passed such remaining portions of this Ordinance despite such invalidity, which remaining portions shall remain in full force and effect.

Section 7. Any person, firm, partnership, corporation or association violating any provision of this Ordinance or of any code adopted herein shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in the sum of not more than \$2,000.00, and each day such violation continues shall constitute a separate and distinct violation.

Section 8. This Ordinance shall take effect and be in full force from and after its passage and publication, as provided by the Revised Civil Statutes of the State of Texas and the Home Rule Charter of the City of McKinney, Texas.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MCKINNEY, TEXAS, ON THIS 16th DAY OF JULY, 2013.

BRIAN LOUGHMILLER
Mayor

CORRECTLY ENROLLED:

SANDY HART, TRMC, MMC
City Secretary
BLANCA I. GARCIA
Assistant City Secretary

DATE: _____

APPROVED AS TO FORM:

MARK S. HOUSER
City Attorney

ATTACHMENT A

Recommended Amendments to the 2012 International Fire Code North Central Texas Council of Governments region

The following sections, paragraphs, and sentences of the *2012 International Fire Code* are hereby amended as follows: Standard type is text from the IFC. Underlined type is text inserted. ~~Lined through type is deleted text from IFC.~~

Note: Historically, NCTCOG has limited Chapter 1 amendments in order to allow each city to insert their local policies and procedures. We now have suggested certain items to be brought to the attention of cities considering adoption of the code that may be of concern to several jurisdictions. **It is still intended to be discretionary to each city to determine which Chapter 1 amendments to include.** Note that Appendices must be specifically adopted by Ordinance. See Sample Ordinance on Page xii of 2012 IFC. Also, note that several sections of the code, as indicated in the Sample Ordinance, require jurisdictional specificity as to dollar amounts, geographic limits, etc.

Explanation of Options A and B:

Please note that as there is a wide range in fire fighting philosophies/capabilities of cities across the region, OPTIONS "A" and "B" are provided in the Fire and Building Code amendments. Jurisdictions should choose one of these based on their fire fighting philosophies/capabilities when adopting code amendments.

Section 102.1; change #3 to read as follows:

- Existing structures, facilities and conditions when required in Chapter 11 or in specific sections of this code.

(Reason: To clarify that there are other provisions in the fire code applicable to existing buildings that are not located in Chapter 11, such as Section 55 Premises Identification.)

Section 102.7; change to read as follows:

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 80, and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

102.7.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.7.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code and any adopted amendments, the provisions of this code and any adopted amendments, as applicable, shall take precedence over the provisions in the referenced code or standard.

(Reason: To be consistent with the State of Texas, other referenced codes must be specifically adopted)

Section 105.3.3; change to read as follows:

105.3.3 Occupancy Prohibited before Approval. The building or structure shall not be occupied prior to the fire code official issuing a permit when required and conducting associated inspections indicating the applicable provisions of this code have been met.

(Reason: For clarity to allow for better understanding in areas not requiring such permits, such as unincorporated areas of counties. This amendment may be struck by a city.)

Section 105.7; add Section 105.7.17 to read as follows:

105.7.17 Smoke control or exhaust systems. Construction permits are required for smoke control or exhaust systems as specified in Section 909 and Section 910 respectively. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

(Reason: Section 105.7.17 adds construction permit requirements for smoke control and exhaust systems, which are required fire protection systems by Chapter 9 of the fire code to ensure proper design and installation of such systems. These changes reflect local practices of municipalities in this region.)

Section 105.7; add Section 105.7.18 to read as follows:

105.7.18 Electronic access control systems. Construction permits are required for the installation or modification of an electronic access control system, as specified in Section 503 and Section 1008. A separate construction permit is required for the installation or modification of a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

(Reason: Section 105.7.18 adds construction permit requirements for electronic access control systems for electric security gates and exit doors to ensure proper design and installation of such systems. These changes reflect local practices of municipalities in this region.)

Section 202; amend and add definitions to read as follows:

[B] AMBULATORY CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing, or similar care on a less than 24-hour basis to persons who are rendered incapable of self-preservation by the services provided. This group may include but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

(Reason: to clarify the range of uses included in the definition)

[B] ATRIUM. An opening connecting ~~two~~ three or more stories... *{remaining text unchanged}*

(Reason: Accepted practice in the region based on legacy codes. IBC Section 1009 permits unenclosed two story stairways under certain circumstances.)

FIRE WATCH. A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals or standby personnel when required by the fire code official, for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

(Reason: Clearly defines options to the fire department for providing a fire watch.)

FIREWORKS. Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration, or detonation, and/or activated by ignition with a match or other heat producing device that meets the definition of 1.4G fireworks or 1.3G fireworks as set forth herein. ...*{remainder of text unchanged}*...

(Reason: Increased safety from fireworks related injuries.)

Option A

HIGH-PILED COMBUSTIBLE STORAGE: add a second paragraph to read as follows:

Any building classified as a group S Occupancy or Speculative Building exceeding 12,000 sq.ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage.. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

Options B

HIGH-PILED COMBUSTIBLE STORAGE: add a second paragraph to read as follows:

Any building classified as a group S Occupancy or Speculative Building exceeding 6,000 sq.ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

(Reason: To provide protection for worst-case scenario in flexible or unknown situations.)

Option A

HIGH-RISE BUILDING. {No Change Required}

Options B

HIGH-RISE BUILDING. A building with an occupied floor located more than ~~75~~ 55 feet (~~22 860~~ 16 764 mm) above the lowest level of fire department vehicle access.

(Reason: To provide a definition that reflects regional practices.)

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such minor repairs.

(Reason: To further clarify types of service work allowed in a repair garage, as well as to correspond with definition in the IBC.)

SELF-SERVICE STORAGE FACILITY. Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

(Reason: To provide a definition that does not exist in the code.)

STANDBY PERSONNEL. Qualified fire service personnel, approved by the Fire Chief. When utilized, the number required shall be as directed by the Fire Chief. Charges for utilization shall be as normally calculated by the jurisdiction.

(Reason: To provide a definition that does not exist in the code.)

Section 307.1.1; change to read as follows:

307.1.1 Prohibited open burning. Open burning ~~shall be prohibited that is offensive or objectionable because of smoke emissions or~~ when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.

Exception: {No change.}

(Reason: Maintains current local requirements based on legacy and 2009 IFC requirements.)

Section 307.2; change to read as follows:

307.2 Permit required. A permit shall be obtained from the *fire code official* in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or open burning ~~a bonfire~~. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.

Examples of state or local law, or regulations referenced elsewhere in this section may include but not be limited to the following:

1. Texas Commission on Environmental Quality guidelines and/or restrictions.
2. State, County, or Local temporary or permanent bans on open burning.
3. Local written policies as established by the *fire code official*.

(Reason: Amendments to 307.2, 307.4, 307.4.3, and 307.5 better explain current requirements and recognize that jurisdictions have local established policies that best fit their environments.)

Section 307.3; change to read as follows:

307.3 Extinguishment authority. ~~When open burning creates or adds to a hazardous situation, or a required permit for open burning has not been obtained, the fire code official is authorized to order the extinguishment of the open burning operation.~~ The fire code official is authorized to order the extinguishment by the permit holder, another person responsible or the fire department of open burning that creates or adds to a hazardous or objectionable situation.

(Reason: Maintains current local requirements based on legacy and 2009 IFC requirements.)

Section 307.4; change to read as follows:

307.4 Location. The location for open burning shall not be less than ~~50 300~~ feet (45-240 91 440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within ~~50 300~~ feet (45-240 91 440 mm) of any structure.

Exceptions: {No change.}

(Reason: Amendments to 307.2, 307.4, 307.4.3 and 307.5 better explain current requirements and recognize that jurisdictions have local established policies that best fit their environments.)

Section 307.4.3, Exceptions: add exception #2 to read as follows:

Exceptions:

2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system.

(Reason: Amendments to 307.2, 307.4, 307.4.3 and 307.5 better explain current requirements and recognize that jurisdictions have local established policies that best fit their environments.)

Section 307.4.4 and 5; add section 307.4.4 and 307.4.5 to read as follows:

307.4.4 Permanent outdoor firepit. Permanently installed outdoor firepits for recreational fire purposes shall not be installed within 10 feet of a structure or combustible material.

Exception: Permanently installed outdoor fireplaces constructed in accordance with the International Building Code.

307.4.5 Trench Burns. Trench burns shall be conducted in air curtain trenches and in accordance with Section 307.2.

(Reason: Amendments to 307.2, 307.4, 307.4.3 and 307.5 better explain current requirements and recognize that jurisdictions have local established policies that best fit their environments.)

Section 307.5; change to read as follows:

307.5 Attendance. Open burning, trench burns, bonfires, recreational fires, and use of potable outdoor fireplaces shall be constantly attended until the... {remainder of section unchanged}

(Reason: Amendments to 307.2, 307.4, 307.4.3 and 307.5 better explain current requirements and recognize that jurisdictions have local established policies that best fit their environments.)

Section 308.1.1; add sentence to read as follows:

Unmanned free-floating devices containing an open flame or other heat source, such as but not limited to sky lanterns shall be prohibited.

(Reason: Wildland and inherent fire risk presented by allowing an airborne open flame.)

Section 308.1.4; change to read as follows:

308.1.4 Open-flame cooking devices. ~~Charcoal burners and other~~ Open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be operated ~~located or used~~ on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

Exceptions:

1. One- and two-family dwellings, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 lbs (5 containers).
2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity], with an aggregate LP-gas capacity not to exceed 40 lbs (2 containers).
3. {No change.}

(Reason: Decrease fire risk in multi-family dwellings and minimizes ignition sources and clarify allowable limits for 1 & 2 family dwellings, and allow an expansion for sprinklered multi-family uses. This amendment adds clarification and defines the container size allowed for residences.)

Section 308.1.6.2, Exception #3; change to read as follows:

Exceptions:

3. Torches or flame-producing devices in accordance with Section ~~308.4~~ 308.1.3.

(Reason: Section identified in published code is inappropriate.)

Section 311.5; change to read as follows:

311.5 Placards. ~~Any~~ The fire code official is authorized to require marking of any vacant or abandoned buildings or structures determined to be unsafe pursuant to Section 110 of this code relating to structural or interior hazards, shall be marked as required by Section 311.5.1 through 311.5.5.

(Reason: There may be situations where placarding is not desired or necessary; also clarifies intent that it is not the fire code official's responsibility to provide the placard.)

Section 401.9; add Section 401.9 to read as follows:

401.9 False Alarms and Nuisance Alarms. False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

(Reason: Places the responsibility on the business or property owner to maintain their fire alarm systems in approved condition. Allows the enforcement of "prohibition of false alarms". Replaces text lost from the 1997 Code.)

Section 403.3; change Section 403.3 and add Sections 403.3.1 and 403.3.2 to read as follows:

403.3 Crowd managers. Trained crowd managers shall be provided for facilities or events where ~~more than 1,000~~ 250 or more persons congregate. The minimum number of crowd managers shall be established at a ratio of one crowd manager to every 250 persons. ~~Where approved by the fire code official, the ratio of crowd managers shall be permitted to be reduced where the facility is equipped throughout with an approved automatic sprinkler system or based upon the nature of the event.~~

Exceptions:

3. The number of crowd managers may be reduced by up to fifty percent when, in the opinion of the code official, the fire protection provided by the facility and the nature of the event warrant a reduction
4. Assembly occupancies used exclusively for religious worship with an occupant load not exceeding 1,000.

403.3.1 Training. Training for crowd managers shall be approved and shall be based upon a valid job task analysis.

403.3.2 Duties. The duties of crowd managers shall include:

8. An inspection of the area of responsibility to identify and address any egress barriers
9. An inspection of the area of responsibility to identify and mitigate any fire hazards
10. Ensure compliance with all permit conditions, including those governing pyrotechnics and other special effects
11. To direct and assist the event attendees in evacuation during an emergency
12. Assist emergency response personnel if requested.
13. Other duties outlined by the Fire Code Official
14. Other duties outlined in the Emergency Plan

(Reason: The published code has no requirement for crowd managers until the occupant load in a public assembly reaches 1,000, then the code requires five trained crowd managers for an occupant load of 1001. Smaller venues sometimes place the public at greater risk than large ones for many reasons, including the fact that larger facilities have greater requirements for other fire protection features. The formatting change to place the potential reduction in the number of crowd managers in an exception is editorial; the exception was also changed to limit the reduction to half of the required number of crowd managers. The published code requires "trained crowd managers", but doesn't provide any guidance or describe what that training should entail. This has been an ongoing issue for enforcement personnel.)

Section 501.4; change to read as follows:

501.4 Timing of installation. When fire apparatus access roads or a water supply for fire protection is required to be installed for any structure or development, they shall be installed, tested, and approved prior to the time of which construction has progressed beyond completion of the foundation of any structure. ~~, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2.~~

(Reason: Reflects current practice in the region relative to ensuring fire department and EMS access during construction, which can be a time of increased frequency for emergency incidents.)

Section 503.1.1; add sentence to read as follows:

Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a ten feet (10') wide unobstructed pathway around the external walls of the structure.

(Reason: Recognizes that the hose lay provision can only be measured along a pathway that is wide enough for fire fighter access.)

Section 503.2.1; change to read as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm) ~~24 feet (6096 mm)~~ 7315 mm, exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4267 mm) ~~13 feet 6 inches (4115 mm)~~.

Exception: Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance when approved.

(Reason: Amendments to 503.2.1 and 503.2.2 recognize that the equipment now used in firefighting is increasing in size. The code already recognizes that larger dimensions may be required under Section 503.2.2. The amendments are to standardize the dimensions for this area. With the increase in fire apparatus size, this will allow for the passage of two fire apparatus during a fire or EMS emergency.)

Section 503.2.2; change to read as follows:

503.2.2 Authority. The fire code official shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

(Reason: Amendments to 503.2.1 and 503.2.2 recognize that the equipment now used in fire fighting is increasing in size. The code already recognizes that larger dimensions may be required under Section 503.2.2. The amendments are to standardize the dimensions for this area. With the increase in fire apparatus size, this will allow for the passage of two fire apparatus during a fire or EMS emergency.)

Section 503.3; change to read as follows:

503.3 Marking. ~~Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING FIRE LANE Striping, signs, or other markings, when approved by the fire code official, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated Striping, signs and other markings shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.~~

(1) Striping – Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6”) in width to show the boundaries of the lane. The words “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” shall appear in four inch (4”) white letters at 25 feet intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.

(2) Signs – Signs shall read “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” and shall be 12” wide and 18” high. Signs shall be painted on a white background with letters and borders in red, using not less than 2” lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6’6”) above finished grade. Signs shall be spaced not more than fifty feet (50’) apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

(Reason: Establishes a standard method of marking and reflects local long-standing practices.)

Section 503.4; change to read as follows:

503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

(Reason: As originally worded, the section implied that vehicles could be parked in the marked fire lane and not be in violation if the minimum width is still maintained. Current accepted enforcement practice is to require the entire marked fire lane to be maintained clear and unobstructed.)

Section 505.1; change to read as follows:

505.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of ~~4 inches (101.6 mm)~~ 6 inches (152.4 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure. Numerals or addresses shall be posted on a minimum 20 inch (508 mm) by 30 inch (762 mm) background on border. Address numbers shall be maintained.

Exception: R-3 Single Family occupancies shall have approved numerals of a minimum 3 ½ inches (88.9 mm) in height and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

(Reason: To increase the minimum addressing requirements for commercial and establish a minimum for

single-family residential.)

Section 507.4; change to read as follows:

507.4 Water supply test date and information. The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 "Recommended Practice for Fire Flow Testing and Marking of Hydrants" and within one year of sprinkler plan submittal. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official, as required or approved documentation of the test shall be provided to the fire code official prior to final approval of the water supply system. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the waterflow test report, or as approved by the fire code official. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well, or identify applicable water supply fluctuation. The licensed contractor must then design the fire protection system based on this fluctuation information, as per the applicable referenced NFPA standard. Reference Section 903.3.5 for additional design requirements.

(Reason: Clarifies intent of the test to ensure contractor accounts for water supply fluctuations.)

Section 507.5.4; change to read as follows:

507.5.4 Obstruction. Unobstructed access to fire hydrants shall be maintained at all times. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

(Reason: Maintains wording from 2006 Code to ensure these critical devices are available in an emergency incident.)

Section 509.1.2; add new Section 509.1.2 to read as follows:

509.1.2 Sign Requirements. Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of 2 inches (50.8 mm) when located inside a building and 4 inches (101.6 mm) when located outside, or as approved by the fire code official. The letters shall be of a color that contrasts with the background.

(Reason: Provides direction as to appropriate sign criteria to develop consistency in this regard.)

Section 603.3.2.1, Exception; change exception to read as follows:

Exception: The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11,356 L) in accordance with all requirements of Chapter 57. of Class II or III liquid for storage in protected above-ground tanks... {Delete remainder of Exception}

(Reason: Change to Section 5704.2.9.5 is included in this amendment package.)

Section 603.3.2.2; change to read as follows:

603.3.2.2 Restricted use and connection. Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning or generator equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

(Reason: Relocate the exception to Chapter 57 for applicability to generator sets, due to contradictory charging statement in 603.1 to not apply to internal combustion engines. Further, such large quantities of combustible liquid are more thoroughly addressed in Chapter 57 relative to such tanks.)

Section 604; change to read as follows:

**SECTION 604
EMERGENCY AND STANDBY POWER SYSTEMS**

604.1 Installation. Emergency and standby power systems required by this code or the *International Building Code* shall be installed in accordance with this code, NFPA 110 and 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

604.1.1 Stationary generators. Stationary emergency and standby power generators required by this code shall be listed in accordance with UL 2200.

604.1.2 Critical Operations Power Systems (COPS). For Critical Operations Power Systems necessary to maintain continuous power supply to facilities or parts of facilities that require continuous operation for the reasons of public safety, emergency management, national security, or business continuity, see NFPA 70.

604.2 Where required. Emergency and standby power systems shall be provided where required by

Sections 604.2.1 through 604.2.18.4 604.2.24 or elsewhere identified in this code or any other referenced code.

604.2.1 Group A occupancies. Emergency voice/alarm communications systems. Emergency power shall be provided for emergency voice/alarm communications systems in Group A the following occupancies, or as specified elsewhere in this code, in accordance with Section 907.5.2.2.5 907.2.1.1.

Covered and Open Malls, Section 604.2.13

Group A occupancies, Sections 907.2.1.1 and 907.5.2.2.4.

Special Amusement buildings, Section 907.2.12.3

High rise buildings, Section 907.2.13

Atriums, Section 907.2.14

Deep Underground buildings, Section 907.2.19

604.2.2 Smoke control systems. Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, in accordance with Section 909.11:

Covered mall building, International Building Code, Section 404.5

Atriums, International Building Code, Section 404.7

Underground buildings, International Building Code, Section 405.5

Group I-3, International Building Code, Section 408.9

Stages, International Building Code, Section 410.3.7.2

Special Amusement buildings (as applicable to Group A's), International Building Code, Section 411.1

Smoke protected seating, Section 1028.6.2.1

604.2.3 Exit signs. Emergency power shall be provided for exit signs in accordance with Section 1011.6.3. (90 minutes)

604.2.4 Means of egress illumination. Emergency power shall be provided for means of egress illumination in accordance with Section 1006.3. (90 minutes)

604.2.5 Accessible means of egress elevators. Standby power shall be provided for elevators that are part of an accessible means of egress in accordance with Section 1007.4.

604.2.6 Accessible means of egress platform lifts. Standby power in accordance with this section or ASME A18.1 shall be provided for platform lifts that are part of an accessible means of egress in accordance with Section 1007.5

604.2.7 Horizontal sliding doors. Standby power shall be provided for horizontal sliding doors in accordance with Section 1008.1.4.3.

604.2.8 Semiconductor fabrication facilities. Emergency power shall be provided for semiconductor fabrication facilities in accordance with Section 2703.15.

604.2.9 Membrane structures. Emergency power shall be provided for exit signs in temporary tents and membrane structures in accordance with Section 3103.12.6.1. (90 minutes) Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with the International Building Code. (4 hours)

604.2.10 Hazardous materials. Emergency or standby power shall be provided in occupancies with hazardous materials in accordance with Section 5004.7 and 5005.1.5.

604.2.11 Highly toxic and toxic materials. Emergency power shall be provided for occupancies with highly toxic or toxic materials in accordance with Sections 6004.2.2.8 and 6004.3.4.2.

604.2.12 Organic peroxides. Standby power shall be provided for occupancies with organic peroxides in accordance with Section 6204.1.11.

604.2.13 Covered and open mall buildings. (no change).

604.2.14 High-rise buildings. (no change).

604.2.15 Underground buildings. (no change).

604.2.16 Group I-3 occupancies. (no change).

604.2.17 Airport traffic control towers. (no change).

604.2.18 Elevators. (no change).

604.2.19 Smokeproof enclosures and Stair Pressurization Alternative. Standby power shall be provided for smokeproof enclosures, stair pressurization alternative and associated automatic fire detection systems as required by the International Building Code, Section 909.20.6.2.

604.2.20 Elevator pressurization. Standby power shall be provided for elevator pressurization system as required by the International Building Code, Section 909.21.5.

604.2.21 Elimination of Smoke Dampers in Shaft Penetrations. Standby power shall be provided when eliminating the smoke dampers in ducts penetrating shafts in accordance with the International Building Code, Section 717.5.3, exception 2.3.

604.2.22 Common exhaust systems for clothes dryers. Standby power shall be provided for common exhaust systems for clothes dryers located in multistory structures in accordance with the International Mechanical Code Section 504.8, item 7.

604.2.23 Hydrogen Cutoff Rooms. Standby power shall be provided for mechanical ventilation and gas detection systems of Hydrogen Cutoff Rooms in accordance with the International Building Code, Section 421.8.

604.2.24 Means of Egress Illumination in Existing Buildings. Emergency power shall be provided for means of egress illumination in accordance with Section 1104.5 and 1104.5.1 when required by the fire code official. (90 minutes in I-2, 60 minutes elsewhere.)

604.3 Energy time duration. Unless a time limit is specified by the fire code official, in this chapter or elsewhere in this code, or in any other referenced code or standard, the emergency and standby power system shall be supplied with enough fuel or energy storage capacity for not less than 2-hour full-demand operation of the system.

Exception: Where the system is supplied with natural gas from a utility provider and is approved.

- 604.3.4 Maintenance.** (no change).
604.4.5 Operational inspection and testing. (no change).
604.5.6 Emergency lighting equipment. (no change).
604.6.7 Supervision of maintenance and testing. (no change).

(Reason: These provisions provide a list to complete and match that throughout the codes. IBC Section 2702.13 "pyrophoric materials" no longer exists in IFC Section 604. The only new items are the reference to COPS in NFPA 70, and the specified Energy time duration. Other changes are a reference to a code provision that already exists.)

Section 704.1; change to read as follows:

704.1 Enclosure. Interior vertical shafts, including but not limited to *stairways*, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as required in Chapter 11. New floor openings in existing buildings shall comply with the *International Building Code*.

(Reason: Provides standard minimum protection retroactively, but clarifies that this section is not to be used to reduce higher protection levels that were required when originally constructed.)

Section 807.4.3.2; change to read as follows:

807.4.3.2 Artwork. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such materials shall not be continuous from floor to ceiling or wall to wall.

Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

Exception: Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

(Reason: Consistent with regional practice. This change allows an increase in wall coverage due to the presence of sprinklers. Also provides additional guidance relative to acceptable amounts of artwork in classrooms.)

Section 807.4.4.2; change to read as follows:

807.4.4.2 Artwork. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such materials shall not be continuous from floor to ceiling or wall to wall.

Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

Exception: Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

(Reason: Consistent with regional practice. This change allows an increase in wall coverage due to the presence of sprinklers. Also provides additional guidance relative to acceptable amounts of artwork in classrooms.)

Section 901.4.3; change to read as follows:

901.4.3 Fire areas. {First part of section unchanged} ...determined in accordance with Section 707.3.910 of the *International Building Code*.

(Reason: Errata – see ICC website for more information - incorrect section number is referenced in the published code as 707.3.9, which applies to mixed use occupancy separation, rather than fire area separation for sprinkler purposes.)

Section 901.6.1; add Section 901.6.1.1 to read as follows:

901.6.1.1 Standpipe Testing. Building owners/managers must maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed when foreign material is present, and also hydrostatically tested for all FDC's on any type of

standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.

2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the *fire code official*) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the *fire code official*.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (*fire code official*) shall be followed.
7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the *fire code official* for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the *fire code official*.

(Reason: Increases the reliability of the fire protection system and re-emphasizes the requirements of NFPA 25 relative to standpipe systems, as well as ensuring that FDC connections are similarly tested/maintained to ensure operation in an emergency incident.)

Section 901.7; change to read as follows:

901.7 Systems out of service. Where a required *fire protection system* is out of service or in the event of an excessive number of activations, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall either be evacuated or an *approved fire watch* shall be provided for all occupants left unprotected by the shut down until the *fire protection system* has been returned to service. ...{remaining text unchanged}

(Reason: Gives fire code official more discretion. Requires adoption of definition amendment in Section 202 for fire watch.)

Section 901.9; change Section 901.9 to read as follows:

901.9 Discontinuation or change Termination of monitoring of service. ~~For fire alarm systems required to be monitored by this code, Notice shall be made to the fire code official whenever contracted alarm monitoring services for monitoring of any fire alarm system are terminated for any reason, or a change in alarm monitoring provider occurs.~~ Notice shall be made in writing to the *fire code official* by the building owner and monitoring service provider prior to the service being terminated.

(Reason: To ensure the property's monitored fire alarm system is maintained for proper notification of emergency response in the event of an emergency incident.)

Section 903.1.1; change to read as follows:

903.1.1 Alternative protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in lieu of addition to automatic sprinkler protection where recognized by the applicable standard and, or as approved by the *fire code official*.

(Reason: Such alternative systems do not provide the reliability of automatic sprinkler protection in general. An applicant could pursue an Alternate Method request to help mitigate the reliability issues with these alternative systems with the fire code official if so desired, or there may be circumstances in which the fire code official is acceptable to allowing an alternate system in lieu of sprinklers, such as kitchen hoods or paint booths. This also meets with local practices in the region.)

Section 903.2; add paragraph to read as follows:

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

(Reason: Firefighter and public safety. This amendment eliminates the shunt trip requirement of the International Building Code Section 3006.5 for the purpose of elevator passenger and firefighter safety. This amendment is contingent on the Building Code amendment eliminating the Exceptions to Section 3006.4, such that passive fire barriers for these areas are maintained. This also meets with local practices in the region.)

Section 903.2; delete the exception.

(Reason: The exception deletion is due to the fact that such telecom areas pose an undue fire risk to the structural integrity of the building. This also meets with local practices in the region.)

Section 903.2.9; add Section 903.2.9.3 to read as follows:

903.2.9.3 Self-service storage facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Exception: One-story self-service storage facilities that have no interior corridors, with a one-hour fire barrier separation wall installed between every storage compartment.

(Reason: Fire departments are unable to inspect these commercial occupancies and are unaware of the contents being stored. This also meets with local practices in the region.)

Option A

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7, and 903.2.11.8, as follows:

903.2.11.3 Buildings 55 feet or more in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1509 of the International Building Code, ~~having an occupant load of 30 or more~~ that is located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access.

Exceptions:

- ~~1. Airport control towers.~~
2. Open parking structures in compliance with Section 406.5 of the International Building Code.
- ~~3. Occupancies in Group F-2.~~

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.

903.2.11.8 Spray Booths and Rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

Option B

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7, 903.2.11.8, and 903.2.11.9 as follows:

903.2.11.3 Buildings ~~55~~ 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1509 of the International Building Code, ~~having an occupant load of 30 or more~~ that is located ~~55~~ 35 feet (~~16 764~~ 10 668 mm) or more above the lowest level of fire department vehicle access.

Exceptions:

- ~~1. Airport control towers.~~
2. Open parking structures in compliance with Section 406.5 of the International Building Code.
- ~~3. Occupancies in Group F-2.~~

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.

903.2.11.8 Spray Booths and Rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

903.2.11.9 Buildings Over 6,000 sq.ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq.ft. or greater and in all existing buildings that are enlarged to be 6,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking garages in compliance with Section 406.5 of the International Building

(Reason: Reflects regional practices. Provides jurisdictions options as to their desired level of sprinkler protection based on multiple factors including firefighting philosophies/capabilities.)

Section 903.3.1.1.1; change to read as follows:

903.3.1.1.1 Exempt locations. When approved by the *fire code official*, automatic sprinklers shall not be required in the following rooms or areas where such ...*{text unchanged}*... because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
4. ~~In rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
5. ~~Fire service access~~ Elevator machine rooms, and machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
6. {Delete.}

(Reason: Gives more direction to code official. Exception 4 deleted to provide protection where fire risks are poorly addressed. Amendment 903.2 addresses Exception 5 above relative to the elimination of sprinkler protection in these areas to avoid the shunt trip requirement.)

Section 903.3.1.2.2; add section to read as follows:

Section 903.3.1.2.2 Attics, Open Breezeways, and Attached Garages. Sprinkler protection is required in attic spaces of such buildings two or more stories in height, open breezeways, and attached garages.

(Reason: Open breezeways already require sprinkler protection in Section 1026.6, Exception 4. Attic protection is required in accordance with existing regional practice and issues with fire exposure via soffit vents, as well as firefighter safety. Attached garages already require sprinkler via NFPA 13R – re-emphasis.)

Section 903.3.1.3; change to read as follows:

903.3.1.3 NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one- and two-family dwellings, Group R-3 and R-4 congregate living facilities and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

(Reason: To allow the use of the Plumbing section of the IRC and recognize current state stipulations in this regard.)

Section 903.3.5; add a second paragraph to read as follows:

Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10 psi safety factor. Reference Section 507.4 for additional design requirements.

(Reason: To define uniform safety factor.)

Section 903.4; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

(Reason: To avoid significant water losses. Consistent with amendment to IFC 905.9.)

Section 903.4.2; add second paragraph to read as follows:

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

(Reason: Fire department connections are not always located at the riser; this allows the fire department faster access.)

Section 905.2; change to read as follows:

905.2 Installation standard. Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

(Reason: To define manual dry standpipe supervision requirements. Helps ensure the integrity of the standpipe system via supervision, such that open hose valves will result in a supervisory low air alarm.)

Section 905.3; add Section 905.3.9 and exception to read as follows:

905.3.9 Building area. In buildings exceeding 10,000 square feet in area per story, Class I automatic wet or manual wet standpipes shall be provided where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access.

Exception: Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.

(Reason: Allows for the rapid deployment of hoselines to the body of the fire.)

Section 905.4, item 5; change to read as follows:

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way a-hose connection shall be located to serve the roof or at the highest landing of a stairway with stair access to the roof provided in accordance with Section 1009.16. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

(Reason: Reduces the amount of pressure required to facilitate testing, and provides backup protection for fire fighter safety.)

Section 905.4; add the following item 7:

7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

(Reason: Allows for the rapid deployment of hoselines to the body of the fire.)

Section 905.9; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

(Reason: To avoid significant water losses. Consistent with amendment to IFC 903.4.)

Section 907.1; add Section 907.1.4 to read as follows:

907.1.4 Design standards. All alarm systems new or replacement shall be addressable. Alarm systems serving more than 20 smoke detectors shall be analog addressable.

Exception: Existing systems need not comply unless the total building remodel or expansion initiated after the effective date of this code, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building must comply within 18 months of permit application.

(Reason: Consistent with local practice and emerging technology. Reduces need for panel replacement in the future.)

Section 907.2.1; change to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with new Section 907.6 shall be installed in Group A occupancies ~~where the~~ having an occupant load due to the assembly occupancy is of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.910 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: {No change.}

Activation of fire alarm notification appliances shall:

1. Cause illumination of the means of egress with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

(Reason: Increases the requirement to be consistent with Group B requirement. Also addresses issue found in Group A occupancies of reduced lighting levels and other A/V equipment that distracts from fire alarm notification devices. Also reflects regional practice.)

Section 907.2.3; change to read as follows:

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

(Reason: To distinguish educational from day care occupancy minimum protection requirements. Further, to define threshold at which portable buildings are considered a separate building for the purposes of alarm systems.)

Section 907.2.3; change exception 1. to read as follows:

Exceptions:

1. A manual fire alarm system is not required in Group E educational and day care occupancies with an occupant load of less than 30 or less when provided with an approved automatic sprinkler system.

- 1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.)

(Reason: Consistent with Texas State laws concerning day care facility requirements.)

Section 907.2.13, Exception 3; change to read as follows:

3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.

(Reason: To indicate that enclosed areas within open air seating type occupancies are not exempted from automatic fire alarm system requirements.)

Section 907.4.2; add Section 907.4.2.7 to read as follows:

907.4.2.7 Type. Manual alarm initiating devices shall be an approved double action type.

(Reason: Helps to reduce false alarms. Consistent with regional requirements.)

Section 907.6.1; add Section 907.6.1.1 to read as follows:

907.6.1.1 Wiring Installation. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from an addressable input (monitor) module may be wired Class B, provided the distance from the addressable module to the initiating device is ten feet or less.

(Reason: To provide uniformity in system specifications and guidance to design engineers. Improves reliability of fire alarm devices and systems.)

Section 907.6.5; add Section 907.6.5.3 to read as follows:

907.6.5.3 Communication requirements. All alarm systems, new or replacement, shall transmit alarm, supervisory and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station as defined in NFPA 72, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition.

(Reason: To assist responding personnel in locating the emergency event.)

Section 910.1; change Exception 2 to read as follows:

2. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, automatic-only manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall not be required within these areas. Automatic smoke and heat vents are prohibited.

(Reason: Allows the fire department to control the smoke and heat during and after a fire event. Also gives an alternative to smoke and heat vents.)

Section 910.2; add subsections 910.2.3 with exceptions and 910.2.4 to read as follows:

910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m²) in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

(Reason: Maintains a fire protection device utilized in such occupancies where it is sometimes necessary to allow chemicals to burn out, rather than extinguish.)

Table 910.3; Change the title of the first row of the table from “Group F-1 and S-1” to include “Group H” and to read as follows:

Group H, F-1 and S-1

(Reason: Consistency with the amendment 910.2.4 to include Group H.)

Section 910.3; replace Sections 910.3.1 through 910.3.3, and add second paragraph to Section 910.3.2.2 as follows:

910.3.1 Design. Smoke and heat vents shall be *listed and labeled* to indicate compliance with UL 793.

910.3.2 Vent operation. Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

910.3.2.1 Gravity-operated drop out vents. Automatic smoke and heat vents containing heat-sensitive glazing designed to shrink and drop out of the vent opening when exposed to fire shall fully open within 5 minutes after the vent cavity is exposed to a simulated fire represented by a time-temperature gradient that reaches an air temperature of 500°F (260°C) within 5 minutes.

910.3.2.2 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

910.3.2.3 Nonsprinklered buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Gravity-operated drop out vents complying with Section 910.3.2.1.

910.3.3 Vent dimensions. The effective venting area shall not be less than 16 square feet (1.5 m²) with no dimension less than 4 feet (1219 mm), excluding ribs or gutters having a total width not exceeding 6 inches (152 mm).

(Reason: Errata – see ICC website for more information - Replaces text from the 2009 IFC that was accidentally lost/left out of the 2012 edition first printing, as exemplified by the Section number skipping. Amendment to Section 910.3.2.2 specifies a temperature range at which smoke and heat vents should activate in sprinklered buildings to ensure that the sprinkler system has an opportunity to activate and control the fire prior to vent operation.)

Section 912.2; add Section 912.2.3 to read as follows:

912.2.3 Hydrant distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

(Reason: Consistent with regional practices.)

Section 913.1; add second paragraph and exception to read as follows:

When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. – 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

Exception: When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the *fire code official*. Access keys shall be provided in the key box as required by Section 506.1.

(Reason: This requirement allows fire fighters safer access to the fire pump room. The requirement allows access without being required to enter the building and locate the fire pump room interior access door during a fire event. The exception recognizes that this will not always be a feasible design scenario for some buildings, and as such, provides an acceptable alternative to protect the pathway to the fire pump room.)

Chapter 10: Sections 1001 through 1029; replace all references to “fire code official” with “building official”.

(Reason: Past regional practice and legacy language has always referenced the “building official” as the authority over Chapter 10 issues, except for the maintenance of the means of egress section. The 2012

edition of the IBC references "building official" in these sections, but references "fire code official" in the 2012 IFC, providing for a direct contradiction when both codes are adopted.)

Section 1004.1.2; delete exception:

1004.1.2 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.2. For areas without fixed seating, the occupant load shall not be less than that number determined by dividing the floor area under consideration by the occupant load factor assigned to the function of the space as set forth in Table 1004.1.2. Where an intended function is not listed in Table 1004.1.2, the building official shall establish a function based on a listed function that most nearly resembles the intended function.

~~**Exception:** Where approved by the building official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design occupant load.~~

(Reason: Authority having jurisdiction (AHJ) already has this authority. Technical substantiation is required to support deviation from table values.)

Section 1007.1; add the following Exception 4:

Exceptions:

{previous exceptions unchanged}

4. Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1007.

(Reason: To accommodate buildings regulated under Texas State Law and to be consistent with amendments to Chapter 11.)

Section 1007.5; Platform lifts, amend to read as follows:

1007.5 Platform lifts. Platform (wheelchair) lifts . . . required *accessible route* in Section 1109.7 8, Items 1 through ~~9~~ 10. Standby power . . . {remainder unchanged}

(Reason: Editorial.)

Section 1008.1.9.4; amend exceptions 3 and 4 as follows:

Exceptions:

3. Where a pair of doors serves an *occupant load* of less than 50 persons in a Group B, F, M or S occupancy. *{Remainder unchanged}*
4. Where a pair of doors serves a Group A, B, F, M or S occupancy. *{Remainder unchanged}*

(Reason: Application to M occupancies reflects regional practice; No. 4 expanded to Group A due to it being a similar scenario to other uses; No. 4 was regional practice.)

Section 1008.1.9.9; change to read as follows:

1008.1.9.9 Electromagnetically locked egress doors. Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, I-1, I-2, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, I-1, I-2, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with *listed* hardware that incorporates a built-in switch and meet the requirements below: *{remaining text unchanged}*

(Reason: Regional practice to permit such locks due to the presence of trained staff.)

Section 1015; add new section 1015.7 to read as follows:

1015.7 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

(Reason: Cross reference necessary for coordination.)

Section 1016; add new section 1016.2.2 to read as follows:

1016.2.2 Group F-1 and S-1 increase. The maximum exit access travel distance shall be 400 feet (122

m) in Group F-1 or S-1 occupancies where all of the following are met:

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height;
2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm); and
3. The building is equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1.

(Reason: Past regional practice allowed smoke and heat vents to be utilized to increase travel distance, which resulted in problems when utilizing ESFR systems. This amendment adopts wording from the upcoming 2015 IBC, which has been approved by final action via the ICC code development process but is not yet published.)

Section 1018.1; add exception 6 to read as follows:

{previous text unchanged}

6. In Group B office buildings, corridor walls and ceilings within single tenant spaces need not be of fire-resistive construction when the tenant space corridor is provided with system smoke detectors tied to an approved automatic fire alarm. The actuation of any detector shall activate alarms audible in all areas served by the corridor.

(Reason: To reduce redundant requirements in a single tenant situation. Intended to be consistent with regional amendment to IFC.

Section 1018.6; amend to read as follows:

1018.6, Corridor Continuity. ~~Fire-Resistance-Rated~~ All corridors shall be continuous from the point of entry to an *exit*, and shall not be interrupted by intervening rooms. *{Remainder unchanged}*

{Exception unchanged}

(Reason: Once in corridor, corridor should not be interrupted or discontinuous.)

Section 1026.6; amend exception 4 to read as follows:

Exceptions: *{Exceptions 1 through 3 unchanged}*

4. Separation from the ~~interior~~ open-ended corridors of the building... *{remaining text unchanged}*

(Reason: To clarify that Section 1022.7, i.e., the 180 degree rule is applicable; and is further reinforced by new Exception 4.4.)

Section 1028.1.1.1; delete.

(Reason: Unenforceable.)

Section 1029.1; amend to read as follows:

1029.1 General. In addition to the *means of egress* required by this chapter, provisions shall be made for *emergency escape and rescue openings* in Group R and I-1 ~~Group R-2 occupancies in accordance with Tables 1021.2(1) and 1021.2(2) and Group R-3 occupancies.~~ *{Remainder unchanged}*

Exceptions:

{Exceptions 1 through 3 unchanged.}

4. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

(Reason: Maintains legacy language to ensure egress from residential type occupancies and maintain exception for residential occupancies where an NFPA 13 or 13R sprinkler system is installed, but not for a 13D system.)

Section 1030.2; change to read as follows:

1030.2 Reliability. Required *exit accesses, exits and exit discharges* shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency ~~when the building area served by the means of egress is occupied.~~ An *exit* or *exit passageway* shall not be used for any purpose that interferes with a means of egress.

(Reason: Maintain legacy levels of protection and long-standing regional practice, and provide firefighter safety.)

Section 1103.3; add sentence to end of paragraph as follows:

Provide emergency signage as required by Section 607.2.

(Reason: Coordinates requirements of previous amendment.)

Section 1103.5; add Section 1103.5.3 to read as follows:

1103.5.3 Spray booths and rooms. Existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Section 2404.

(Reason: Consistent with amendment to IFC 2404, regional practice, and long-standing regional requirement.)

Section 2304.1; change to read as follows:

2304.1 Supervision of dispensing. ~~The dispensing of fuel at motor fuel-dispensing facilities shall be conducted by a qualified attendant or shall be under the supervision of a qualified attendant at all times or shall be in accordance with Section 2204.3. the following:~~

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or
3. Shall be an unattended self-service facility in accordance with Section 2304.3.

At any time the qualified attendant of item Number 1 or 2 above is not present, such operations shall be considered as an unattended self-service facility and shall also comply with Section 2304.3.

(Reason: Allows a facility to apply the attended and unattended requirements of the code when both are potentially applicable.)

Section 2401.2; delete this section.

(Reason: This section eliminates such booths from all compliance with Chapter 15 including, but not limited to: size, ventilation, fire protection, construction, etc. If the product utilized is changed to a more flammable substance, the lack of compliance with Chapter 15 could result in significant fire or deflagration and subsequent life safety hazard.)

Table 3206.2, footnote j; change text to read as follows:

j. ~~Not required when storage areas are protected by~~ Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinkler systems installed in accordance with NFPA 13 sprinklers, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas.

(Reason: Allows the fire department to control the smoke and heat during and after a fire event, while ensuring proper operation of the sprinkler protection provided. Also, gives an alternative to smoke and heat vents.)

Section 3310.1; add sentence to end of paragraph to read as follows:

When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time of which construction has progressed beyond completion of the foundation of any structure.

(Reason: Reference requirement of Section 501.4.)

Section 5601.1.3; change to read as follows:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.

Exceptions:

1. Only when approved for fireworks displays, storage and handling of fireworks as allowed in Section 5604 and 5608.
2. ~~Manufacture, assembly and testing of fireworks as allowed in Section 5605.~~
3. ~~2.~~ The use of fireworks for approved fireworks displays as allowed in Section 5608.
4. ~~The possession, storage, sale... {Delete remainder of text.}~~

(Reason: Restricts fireworks to approved displays only, which is consistent with regional practice.)

Section 5703.6; add a sentence to read as follows:

5703.6 Piping systems. Piping systems, and their component parts, for flammable and combustible liquids shall be in accordance with Sections 5703.6.1 through 5703.6.11. An approved method of secondary containment shall be provided for underground tank and piping systems.

(Reason: Increased protection in response to underground leak problems and remediation difficulty in underground applications. Maintains long-standing regional practice.)

Section 5704.2.9.5; change Section 5704.2.9.5 and add Section 5704.2.9.5.3 to read as follows:

5704.2.9.5 Above-ground tanks inside of buildings. Above-ground tanks inside of buildings shall comply with Section 5704.2.9.5.1 and ~~5704.2.9.5.2~~ through 5704.2.9.5.3.

5704.2.9.5.1 {No change.}

5704.2.9.5.2 {No change.}

5704.2.9.5.3 Combustible liquid storage tanks inside of buildings. The maximum aggregate allowable quantity limit shall be 3,000 gallons (11 356 L) of Class II or III combustible liquid for storage in protected aboveground tanks complying with Section 5704.2.9.7 when all of the following conditions are met:

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be located in a room protected by an automatic sprinkler system complying with Section 903.3.1.1; and
4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an approved closed piping system.

The quantity of combustible liquid stored in tanks complying with this section shall not be counted towards the maximum allowable quantity set forth in Table 5003.1.1(1), and such tanks shall not be required to be located in a control area. Such tanks shall not be located more than two stories below grade.

(Reason: Relocated from exception to 603.3.2.1 as published, as per reason statement for deletion in that section. Maintains consistency with current regional requirements relative to interior flammable/combustible liquid storage tanks.)

Section 5704.2.11.5; add a sentence to read as follows:

5704.2.11.5 Leak prevention. Leak prevention for underground tanks shall comply with Sections 5704.2.11.5.1 and ~~5704.2.11.5.2~~ through 5704.2.11.5.3. An approved method of secondary containment shall be provided for underground tank and piping systems.

(Reason: Increased protection in response to underground leak problems and remediation difficulty in underground applications. References regional amendment to IFC 5704.2.11.5.3.)

Section 5704.2.11.5.2; change to read as follows:

5704.2.11.5.2 Leak detection. Underground storage tank systems shall be provided with an *approved* method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30 and as specified in Section 5704.2.11.5.3.

(Reason: Reference to IFC Section 5704.2.11.5.3 amendment.)

Section 5704.2.11.5; add Section 5704.2.11.5.3 to read as follows:

5704.2.11.5.3 Observation wells. Approved sampling tubes of a minimum 4 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling tube at the corners of the excavation with a minimum of 4 tubes. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers, a minimum of two are required.

(Reason: Provides an economical means of checking potential leaks at each tank site.)

Section 5706.5.4; delete Section 5706.5.4.5 and replace with the following:

5706.5.4.5 Commercial, industrial, governmental or manufacturing. Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with Sections 5706.5.4.5.1 through 5706.5.4.5.3.

5706.5.4.5.1 Site requirements.

1. Dispensing may occur at sites that have been permitted to conduct mobile fueling.
2. A detailed site plan shall be submitted with each application for a permit. The site plan must indicate:
 - a. all buildings, structures, and appurtenances on site and their use or function;
 - b. all uses adjacent to the property lines of the site;
 - c. the locations of all storm drain openings, adjacent waterways or wetlands;
 - d. information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and,
 - e. The scale of the site plan.
3. The Code Official is authorized to impose limits upon: the times and/or days during which mobile fueling operations are allowed to take place and specific locations on a site where fueling is permitted.
4. Mobile fueling operations shall be conducted in areas not generally accessible to the public.
5. Mobile fueling shall not take place within 15 feet (4.572 m) of buildings, property lines, or combustible storage.

5706.5.4.5.2 Refueling Operator Requirements.

1. The owner of a mobile fueling operations shall provide to the jurisdiction a written response plan which demonstrates readiness to respond to a fuel spill, carry out appropriate mitigation measures, and to indicate its process to properly dispose of contaminated materials when circumstances require.
2. The tank vehicle shall comply with the requirements of NFPA 385 and Local, State and Federal requirements. The tank vehicle's specific functions shall include that of supplying fuel to motor vehicle fuel tanks. The vehicle and all its equipment shall be maintained in good repair.
3. Signs prohibiting smoking or open flames within 25 feet (7.62 m) of the tank vehicle or the point of fueling shall be prominently posted on 3 sides of the vehicle including the back and both sides.
4. A fire extinguisher with a minimum rating of 40:BC shall be provided on the vehicle with signage clearly indicating its location.

5. The dispensing nozzles and hoses shall be of an approved and listed type.
6. The dispensing hose shall not be extended from the reel more than 100 feet (30.48m) in length.
7. Absorbent materials, non-water absorbent pads, a 10 foot (3.048 m) long containment boom, an approved container with lid, and a non-metallic shovel shall be provided to mitigate a minimum 5-gallon fuel spill.
8. Tanker vehicles shall be equipped with a fuel limit switch such as a count-back switch, limiting the amount of a single fueling operation to a maximum of 500 gallons (1893 L) between resetting of the limit switch.

Exception: Tankers utilizing remote emergency shut-off device capability where the operator constantly carries the shut-off device which, when activated, immediately causes flow of fuel from the tanker to cease.

9. Persons responsible for dispensing operations shall be trained in the appropriate mitigating actions in the event of a fire, leak, or spill. Training records shall be maintained by the dispensing company and shall be made available to the fire code official upon request.
10. Operators of tank vehicles used for mobile fueling operations shall have in their possession at all times an emergency communications device to notify the proper authorities in the event of an emergency.

5706.5.4.5.3 Operational Requirements.

1. The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels.
2. Prior to beginning dispensing operations, precautions shall be taken to assure ignition sources are not present.
3. The engines of vehicles being fueled shall be shut off during dispensing operations.
4. Night time fueling operations shall only take place in adequately lighted areas.
5. The tank vehicle shall be positioned with respect to vehicles being fueled so as to preclude traffic from driving over the delivery hose and between the tank vehicle and the motor vehicle being fueled.
6. During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.
7. Motor vehicle fuel tanks shall not be topped off.
8. The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the tank vehicle.
9. The Code Official and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.

(Reason: Provides clarity and organization of the site, operation and use requirements. Maintains long-standing regional practice.)

Section 6103.2.1; add Section 6103.2.1.8 to read as follows:

6103.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies. Where natural gas service is not available, portable LP-Gas containers are allowed to be used to supply approved torch assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet.

(Reason: To provide a consistent and reasonable means of regulating the use of portable LP-Gas containers in these situations.)

Section 6104.2, Exception; add an exception 2 to read as follows:

Exceptions:

1. {existing text unchanged}

2. Except as permitted in 308 and 6104.3.2, LP-gas containers are not permitted in residential areas.

(Reason: To provide a consistent and reasonable means of regulating the use of portable LP-Gas containers. References regional amendment to IFC 6104.3.2.)

Section 6104.3; add Section 6104.3.2 to read as follows:

6104.3.2 Spas, Pool Heaters and other listed devices. Where natural gas service is not available, an LP-Gas container is allowed to be used to supply spa and pool heaters or other listed devices. Such container shall not exceed 250-gallon water capacity per lot. See Table 6104.3 for location of containers.

Exception: Lots where LP can be off loaded wholly on the property where the tank is located may install 500 gallon above ground or 1,000 gallon underground approved containers.

(Reason: Allows for an alternate fuel source. Dwelling density must be considered and possibly factored into zoning restrictions.)

END